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MIDDLE CLASS FATHERS'

INVOLVEMENT IN THEIR CHILD'S EDUCATION

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by

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To Matt Stephens, my dear husband and very involved father of our daughter Emma.

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Parent involvement in education (PI) is widely documented to benefit children's educational outcomes. PI is a multidimensional construct that takes many different forms. This study considered three dimensions of PI: Home-Based Involvement, School-Based Involvement, and Home-School Communication. Hoover-Dempsey and Sandler have created a theoretical model that seeks to explain what motivates parents to engage in PI and the mechanisms by which PI benefits children's educational outcomes. However, research studies that have used Hoover-Dempsey and Sandler's model used samples that consisted primarily of mothers with fathers typically representing less than 10% of the sample. Father involvement in education has been shown to benefit children's educational outcomes over and above the involvement of mothers. However, there is little known about the PI practices in which fathers engage, or what motivates fathers to engage in PI. Using Hoover-Dempsey and Sandler's model, this study aimed to investigate fathers' PI practices, as well as the variables that motivate fathers to engage in PI. An online survey was conducted and 185 fathers completed the survey in full. Results of the survey suggest that fathers engaged most

often in Home-Based Involvement, less in Home-School Communication, and least often in School-Based Involvement practices. Fathers' belief that it is their role to engage in PI (role construction) and requests from the child to engage in PI consistently explained all three types of PI. Other variables that significantly explained Home-Based Involvement included the father's biological relationship with the child, and whether the father lived with the child's mother. School-Based Involvement was significantly explained by father's perceptions of available time and energy and their biological relationship to the child. The ultimate purpose of this study was to provide educators with information they can use to successfully increase fathers' PI practices for students at their schools.

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Chapter 1. Introduction

It has been extensively documented that parent involvement (PI) in education has beneficial effects on students' academic achievement and school behavior (Becher, 1984; Bempechat, 1992; Brown, 1994; Cotton & Savard, 1980, 1982; Epstein & Van Voorhis, 2001; Fantuzzo, McWayne, Perry & Childs, 2004; Hampton, Fantuzzo, Cohen & Sekino, 2004; Hara & Burke, 1998; Hoover-Dempsey et al., 2001; Mervis & Leiniger, 1993; Sénéchal, 2006; Van Voorhis, 2003 — see also Fan & Chen, 2001; and Jeynes, 2005, 2007 for recent meta analyses of the literature). PI benefits students across different racial and ethnic groups, and the benefits of PI appear to compensate for low socio-economic status (SES) (Fan & Chen, 2002; Hango, 2007: Jeynes, 2005, 2007). Thus, PI provides a powerful protective factor for students who are at risk for academic failure and socio-emotional difficulties. Because of the benefits of PI, several federal programs emphasize the importance of partnerships between parents and schools, and PI has become an integral component of several pieces of education legislation (Fishel & Ramirez, 2005).

PI is a multidimensional construct that can take many forms. Epstein (1987) provided the first and most influential comprehensive description of PI. In addition to formulating a theoretical model of overlapping spheres of responsibility between family and school that changes over time in response to the child's developmental changes (Epstein, 1986), Epstein created a typology of five different types of PI (Epstein, 1987). Fantuzzo and colleagues (Fantuzzo, Tighe & Childs, 2000; Manz, Fantuzzo & Power, 2004) operationalized Epstein's typology, and through factor analysis they consolidated

the five types of PI Epstein described into three dimensions of PI: Home-Based Involvement, School-Based Involvement, and Home-School Communication.

While Epstein's work has defined the many varied forms of PI, and Fantuzzo and colleagues have operationalized PI, Hoover-Dempsey and colleagues have sought to explain *why* parents engage in PI, and how PI benefits students' educational outcomes. Hoover-Dempsey and Sandler's model (1995) is the most comprehensive theoretical model of PI. It encompasses the variables that motivate parents to engage in PI, the types of PI in which parents engage, and the mechanisms by which PI benefits students' educational outcomes. The first level of Hoover-Dempsey and Sandler's model describes variables that are thought to motivate parents to engage in PI. These include three types of variables: motivational beliefs, perceptions of invitations for involvement from others, and life context variables. Research has offered encouraging support for this model (Anderson & Minke, 2007; Green et al., 2007; Ice & Hoover-Dempsey, 2011; Maríñez-Lora & Quintana, 2009).

Some of the most important variables that contribute to PI are school practices that are welcoming, and specific teacher invitations to parents (Anderson & Minke, 2007; Bempechat, 1990; Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991; Green et al., 2007; Hoover-Dempsey et al., 2005; Maríñez-Lora & Quintana, 2009; Overstreet, Devine, Bevans & Efreom, 2005; Simon, 2004; Watkins, 2001). This suggests that school practices can successfully increase PI. In order to create school and teacher practices that successfully promote PI, Hoover-Dempsey and Sandler's model has

proven valuable in helping educators understand parents' motivation to engage in PI.

Fathers play a unique role in the rearing and development of their children (Lamb, 2004). But despite this important role, father involvement in school has received much less attention than parent involvement in general. The samples used in PI studies primarily consist of mothers (80–90% in most studies), with fathers typically representing less than 10 percent of the sample. Several studies that have investigated the effect of father involvement, controlling for the effect of mother involvement (with large nationally representative samples in the U.S. and Britain), suggest that fathers offer a unique contribution to their children's educational achievement, over and above the effects of mother involvement (Flouri, 2004, 2005; Flouri & Buchanan, 2000, 2002, 2003a, 2003b; Flouri, Buchanan & Bream, 2002; McBride, Schoppe-Sullivan & Ho, 2005; Nord, Brimhall & West, 1997). Moreover, the way in which fathers influence their children's academic achievement and school-related functioning is different from the way mothers influence their children's academic achievement and functioning (Grolnick & Slowiaczek, 1994). Unfortunately, research shows that fathers are generally less involved in their children's education than mothers (Grolnick & Slowiaczek, 1994; McBride et al., 2005, 2009; Nord et al., 1997; Rimm-Kaufman & Zhang, 2005).

Despite the apparent discrepancy between the frequency in which mothers and fathers engage in PI, variables affecting fathers' motivation to engage in PI have received little study and are not yet well understood. Given the important role father involvement could play in children's educational outcomes, school practices could have a significant

impact on children's success by promoting father involvement. However, more research is needed to understand what motivates fathers' involvement, in order to inform school practices aimed at increasing father engagement in PI.

This study aimed to contribute to the existing PI literature in two ways: First, it aimed to offer a multidimensional description of the PI practices in which fathers report engaging. Second, it aimed to investigate the variables that explain fathers' engagement in the three dimensions of PI. Thus, this study joins two major theoretical models of PI: Hoover-Dempsey and Sandler's model, and Epstein's comprehensive typology of PI as operationalized by Fantuzzo and colleagues, which is the most comprehensive multidimensional measure of PI currently available. Furthermore, this study is the first to focus exclusively on fathers and PI.

The ultimate goal of this study was to obtain information that educators can use to successfully invite fathers to be involved in their child's education, thus increasing father involvement in their schools, which is thought to bolster student achievement and adjustment. A better understanding of the variables that motivate father involvement could promote successful interactions between educators and fathers. This may increase achievement and success for students with fathers who are currently not taking an active role in their child's education.

Chapter 2. Literature Review

This review of the literature consists of two parts: an overview of the existing literature on parent involvement (PI), and an overview of the literature on father involvement. In the first section, three theoretical models that have shaped PI research will be discussed in detail: Epstein's theoretical model and typology of PI, Fantuzzo's model for operationalizing PI, and Hoover-Dempsey and Sandler's theoretical model of parents' motivation to become involved and how this involvement influences children's learning. Discussions of these models include a review of the empirical support for them. The section is concluded with an overview of important variables related to PI, barriers to PI, and implications for school practices to increase PI.

The next section of this literature review will provide an overview of the current research literature on father involvement in general and father involvement in school in particular. Results of several studies using large, nationally representative samples will be discussed, as well as studies using smaller samples. The section ends with a discussion of variables that may help explain father involvement in schools when added to Hoover-Dempsey and Sandler's theoretical model of PI.

Parent Involvement

Definition of parent involvement. There are many ways in which parents can contribute to the education of their children; therefore, PI is a multidimensional construct that can manifest in many different ways. Because of the complexity of the construct and

the diverse manifestations of forms of PI, researchers have developed several different ways to categorize it, which will be discussed in greater detail below. Epstein (1987) has proposed a typology of six types of PI, ranging from providing basic needs to collaboration with school and community organizations. Based on Epstein's typology, Fantuzzo (2000) used factor analysis to define three dimensions of PI: Home-Based Involvement, School-Based Involvement, and Home-School Communication. Grolnick and Slowiaczek (1994) proposed a broad definition of PI that encompasses all dimensions of PI: "[...] the allocation of resources by the parent to the child within a given domain [i.e. education]" (1994, p. 238). In a review article of the PI literature Fishel and Ramirez (2005) cite the following definition of PI: "[...] the participation of significant caregivers (including parents, grandparents, stepparents, foster parents, etc.) in the educational process of their children in order to promote their academic and social well-being" (Wolfendale, 1983, cited in Ramirez & Fishel, 2005, p. 371). In this paper, the most comprehensive definition of PI, Epstein's typology, will be used. If a more narrow definition of PI is used, there will be a description provided of what type or types of PI, according to Epstein's typology, are being considered.

The significance of parent involvement in education. PI positively impacts children's education in several different ways. Reviews of the literature reveal that various aspects of PI are related to higher academic achievement (Becher, 1984; Bempechat, 1992; Cotton & Savard, 1980; Cotton & Savard, 1982; Illinois State Board of Education, 1993), particularly, if partnerships between parents and schools start early

and are on-going (Hara & Burke, 1998). Parents can play a critical role in the literacy and reading achievement of their children (Brown, 1994), particularly if parents teach their children specific reading skills at home (Sénéchal, 2006). Although recent comprehensive reviews of the literature concluded that the empirical literature has yielded mixed results regarding interventions targeted at increasing PI to improve student achievement (Fishel & Ramirez, 2004; Mattingly et al., 2002), specific interventions targeted at parent tutoring in mathematics and reading successfully increased student achievement in these areas (Fishel & Ramirez, 2004). Also, three recent meta-analyses of the empirical literature found moderate to large effects of PI on student achievement, suggesting that PI generally has positive effects on achievement (Fan & Chen, 2001; Jeynes, 2005, 2007) and that these positive effects were consistent across race and gender (Jeynes, 2005, 2007). The types of PI that were most strongly related to students' achievement were parents' aspirations, expectations, and parental style (Fan & Chen, 2001; Jeynes, 2005, 2007). Interventions targeted at increasing PI with homework resulted in increased student achievement in math, science, and language arts regardless of the families' socio-economic status (SES) (Epstein & Van Voorhis, 2001; Van Voorhis, 2003). Hoover-Dempsey et al., (2001), in an extensive review of the literature, found that PI in homework affected student achievement positively through modeling, reinforcement, and instruction.

Epstein (1986) found that teachers who encouraged PI had better relationships with parents, were perceived as more knowledgeable and competent by parents, and were

seen as leaders within their school community. Higher levels of PI were also related to students' stronger social skills and academic motivation (Hampton et al., 2004), attention, task persistence, receptive vocabulary skills, and low levels of conduct problems (Fantuzzo et al., 2004).

Because of the benefits of PI in academic achievement, students' motivation and affective functioning, and in family-school relationships, PI has been the target of several federal programs, including Head Start, Title I of the Elementary and Secondary Education Act, the Individuals with Disabilities Education Act, and most recently in No Child Left Behind (Fishel & Ramirez, 2005).

Methodological issues in early parent involvement research. Several methodological issues need to be considered in reviewing the PI literature. Although there is a large body of literature documenting the benefits of PI, there are several methodological shortcomings present in many of these studies. Most of the PI research studies did not use true experimental designs with active control groups. Therefore, based on these studies alone one cannot infer causality of PI on children's educational outcomes (Baker & Soden, 1998; Fishel & Ramirez, 2005). Many studies also failed to isolate the effects of PI from other confounding variables (Baker & Soden, 1998). Many research designs used the same informants to measure PI and the child's educational outcomes, and thus suffer from same source bias (Baker & Soden, 1998; Fishel & Ramirez, 2005). A major problem in comparing results across different studies is a lack of a consistent definition of PI (Baker & Soden, 1998; Fishel & Ramirez, 2005). Because PI is a

complex, multidimensional construct, it is important that researchers use multidimensional measures of PI. Many studies, however, used a unidimensional operationalization of PI, measured with only a few items. This makes it difficult to compare results of different studies, and also makes it difficult to determine which types of PI lead to which educational outcomes (Fishel & Ramirez, 2005). Finally, an inherent challenge of PI research is that the parents who participate in these types of studies tend to be the parents who are involved. It is very difficult to obtain information from non-involved parents. Therefore many samples are already biased toward involved families, which may lead to a restriction of range in the data (Carlson, 1993).

In order to overcome many of these challenges, it is important to conduct theory-driven research (Fishel & Ramirez, 2005), using multidimensional definitions of PI, with measures that have sound psychometric properties. Obtaining data from different sources may eliminate, or greatly reduce same-source bias. More research using true experimental designs using active control groups, and isolating the effects of PI from confounding variables is also needed (Baker & Soden, 1998). The next section describes some of the most influential theoretical models in PI research that have attempted to overcome these methodological challenges.

Theoretical models of parent involvement and empirical support.

Epstein's typology – defining PI. Joyce Epstein's work represents some of the most influential contributions to the PI literature. She was the first to conceptualize PI as a multidimensional construct, and created a typology of different ways in which parents

can be involved in their child's school. This typology has formed the basis for the way in which many researchers have operationalized PI.

Epstein formulated her theory of family-school connections in response to the prevalent theories in the 1980's (Epstein, 1986). There were three major perspectives on the respective roles of schools and families at the time: schools and families have *separate* responsibilities, schools and families have *shared* responsibilities, and schools and families have *sequential* responsibilities. These different assumptions about school and family responsibilities influenced expectations about roles of parents and teachers, parent-teacher relationships, and parent-involvement practices (see also Epstein & Becker, 1983).

The assumption that families and schools have separate responsibilities implies that the roles of parents and teachers are fundamentally different, and do not overlap. Parents and teachers should not interfere with each other's responsibilities or collaborate with one another. The assumption that families and schools have shared responsibilities implies that both parents and teachers are responsible for the developmental outcomes of children. Developmental outcomes include both academic and social-emotional outcomes, and schools and parents need to assist children in their development of both areas. The best results can be achieved if parents and teachers collaborate towards shared goals. Finally, the assumption that families and schools have sequential responsibilities is based on theories of developmental stages, and implies that the family has the main responsibility for education in infancy and early childhood, but as soon as the child

reaches school age, the school takes over that role. It is the parents' job to adequately socialize the child in preparation for school entry, but once the child enters school parents should defer most responsibility for educating their children to the teachers. Historical changes in assumptions about the respective roles of families and schools have influenced school and parent practices with respect to children's education. In the mid 1980s, when Epstein published this work, the most recent historical shift was from the theory of separate responsibilities to the theory of shared responsibilities, and an increased emphasis on parent-teacher partnerships and collaboration (Epstein, 1986).

Although there has been an increased emphasis on shared responsibilities between families and schools, and the literature supports the benefits of family-school partnerships (see Epstein, 1986), Epstein pointed out that developmental considerations must be taken into account. Relationships between families and schools change as children move up through the grades, therefore the more overlapping spheres of responsibility of family and school in the early grades become separated as the child grows older. Thus, Epstein unified the three theoretical perspectives on family and school responsibilities into one model: the model includes both shared and separate responsibilities of families and schools, and the extent of overlap is related to the developmental level of the child. See figure 1 for a graphic representation of Epstein's model.

FIGURE 1

Model of Overlapping Spheres of Influence

in Families and Schools

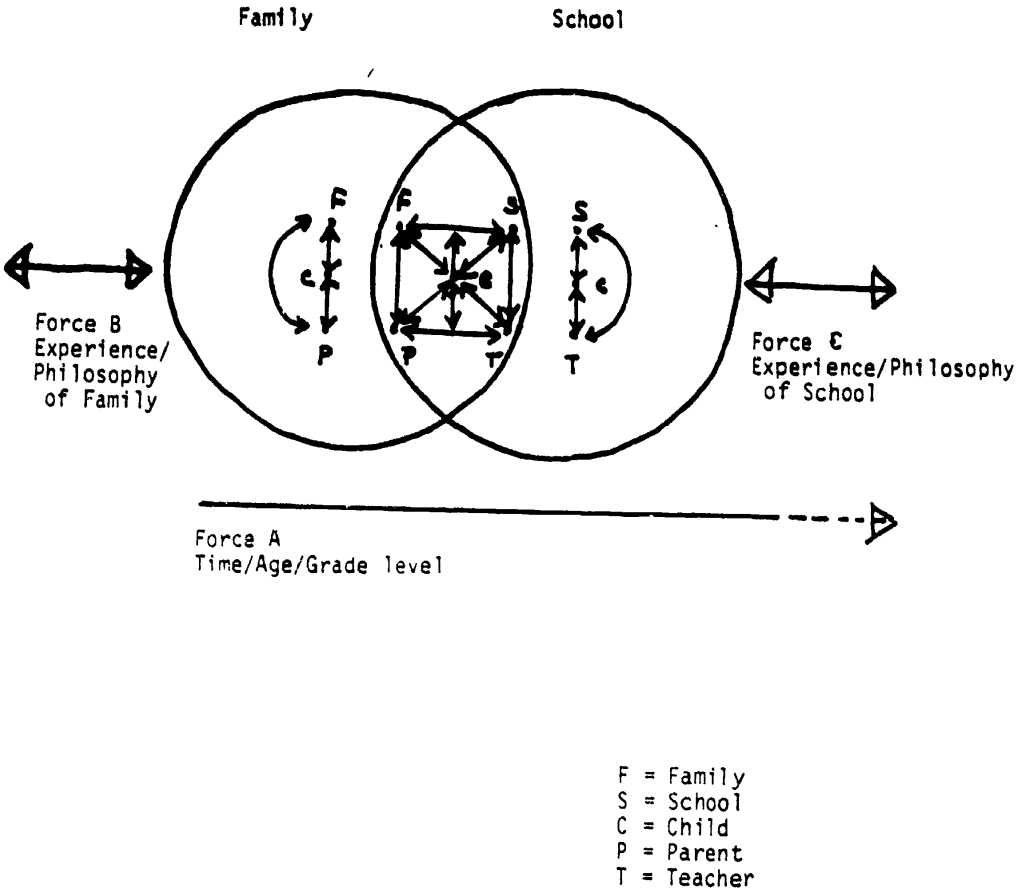


Figure 1. Model of Overlapping Spheres of Influence in Families and Schools

Taken from Epstein, 1986, p. 37.

Epstein's (1986) theoretical model of family and school relationships depicts two partially overlapping spheres of influence: the family and the school. The model also includes three forces: force A is the developmental force (time, age, grade level), force B is the experience and philosophy of the family, and force C is the experience and philosophy of the school. The three forces determine the extent of overlap between the family sphere and the school sphere. The forces also influence interactions between the child, the parent, and the teacher. Epstein emphasized the overlap of the two spheres in her model, and stressed that families and schools mutually influence each other and have similar goals in the education and socialization of children. She predicted that as families and schools collaborate more, the educational process will be more effective and successful, and that teachers and parents will have more favorable opinions of each other (Epstein, 1986).

In order to further assess the process of parent involvement and the overlapping spheres of influence between families and schools, Epstein (1987) proposed a typology of five different types of parent involvement:

- Type 1, basic obligations of families (e.g. providing for children's health and safety, creating positive home conditions that support school learning, providing school supplies, etc.)
- Type 2, communication with school (e.g. memos and newsletters from school, teacher phone calls, parent-teacher conferences)
- Type 3, involvement at school (e.g. volunteering at school, attending

sports events and student performances, chaperoning field trips, etc.)

- Type 4, involvement in learning activities at home (e.g. helping with homework, school projects, etc.)
- Type 5, involvement in decision making, governance, and advocacy (e.g. membership of the PTA/PTO, serving on the school board, etc.).
- Additionally, a sixth type of involvement is suggested: collaboration and exchanges with community organizations.

Note that two of these types of parent involvement are actually school practices: communication, and collaboration with community organizations. Volunteering at school and involvement in learning activities at home are also facilitated by schools and teachers, and could be considered school practices of involvement (Epstein & Dauber, 1991).

Epstein and colleagues have gathered data in support of Epstein's model by surveying parents (e.g. Dauber & Epstein, 1989; Epstein, 1986) and teachers (Epstein & Dauber, 1991), and used her theoretical model to develop and test a Comprehensive School Reform (CSR) Model (Epstein, 2005). Results of these studies offered support for the five types of involvement. Dauber & Epstein (1989) worked with a focus group of teacher representatives for parent involvement to create a survey gather data on the five types of PI. After surveying 2,300 parents (Dauber & Epstein, 1989) and 171 teachers (Epstein & Dauber, 1991), they reported moderate internal consistencies for each type of involvement, ranging from .58 to .81 (Dauber & Epstein, 1989), and moderate

correlations between the different types of involvement r = .303 – 569 (Epstein & Dauber, 1991). These results suggested that the types of involvement are related to each other, but also offer separate contributions to schools' programs of parent involvement. Results further suggested a hierarchy of the five types of involvement, and a cumulative Guttman scale-like pattern. The presence of higher types of involvement (e.g. type 4, involvement in learning activities at home) also predicted the presence of lower types of involvement (e.g. type 2, communication with school and type 3, involvement at school). Type 2 involvement (communication between home and school) was least predictive of other types of involvement (Epstein & Dauber, 1991). The strongest predictor of all five types of parent involvement was practices of individual teachers to help parents be involved (Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991).

Results offered support for a shift in overlap between the school and family spheres, and changing emphasis on different types of PI as children become older. Parent involvement occurred most in elementary school and declined as children move up in the grades (Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991). The only exception was communication between school and home, which continued at a similar rate between elementary and middle schools (Epstein & Dauber, 1991). Teachers in the lower grades of elementary schools and teachers with fewer years of teaching experience were more likely to use parent volunteers than teachers in higher elementary or middle school grades (Epstein & Dauber, 1991).

The studies also offered support for the influence of the experience and

philosophy of parents and teachers on PI practices. Results suggested an overall favorable view of PI in school from both parents (Epstein, 1986) and teachers (Epstein & Dauber, 1991). Parents were more likely to be involved in school related activities at home than at school, and expressed a desire for more information on how they could help their children at home (Epstein, 1986; Epstein & Dauber, 1991). Parents had more positive views about the school and the teacher's competence and professionalism if the teacher used practices to involve parents (Epstein, 1986). PI practices were stronger in schools where teachers felt supported by the school and their colleagues, and felt that their goals for PI were similar to their own (Epstein & Dauber, 1991).

Overall, Epstein's theoretical model of overlapping spheres of responsibility for children's education offers a useful framework for understanding the assumptions and beliefs that influence school practices to encourage (or discourage) PI. Her typology of five different types of involvement is also useful because it shows that parents can be involved in many different ways, even if the ways in which they are involved are not necessarily visible to school personnel. One of the most important findings in her research is the importance of school practices, and particularly the practices of individual teachers in promoting PI. This refers back to the idea of overlapping spheres of responsibility, and the necessity for partnerships between schools and families. One point of critique is that in the typology of involvement it is not always clear whether Epstein is referring to school practices of involvement, or parent involvement activities. According to her theoretical model, all five types of involvement (including type 1) could be both

school and parent practices, because schools and families mutually influence each other. This overlap makes it hard to distinguish between the roles of parents and schools/teachers, which may make it difficult to operationalize and measure these different constructs. Unfortunately, information was not provided regarding reliability and validity of the survey that was used for the above cited publications.

Fantuzzo's multivariate assessment of family participation – operationalizing PI. Using a developmental-ecological theoretical model (Bronfenbrenner, 1986), Fantuzzo and colleagues have contributed to the PI literature by focusing mainly on low-income, urban, mostly African American children in early childhood, preschool, and kindergarten programs including Head Start. They identified three major shortcomings of the PI literature up until 2000. They noted inconsistent definitions and inadequate operationalizations of the PI construct, a lack of a developmental perspective in the PI literature, and a unidirectional measurement of the PI construct. One of their major contributions to the PI literature was operationalizing and empirically validating the various forms of PI identified in Epstein's typology, and creating culturally sensitive multidimensional scales to assess these forms of PI for urban early childhood and elementary school populations. The paragraphs below describe how Fantuzzo and colleagues went about this task, addressing each of the major weaknesses they have identified in the PI literature.

Fantuzzo and colleagues' (2000) first criticism of the existing literature was that PI was not adequately defined and operationalized. Many researchers up to that point

used a single item or only a few items to measure PI. PI is a multidimensional construct, and when only a few items are used different aspects of this construct may not be measured. This makes it difficult to interpret results, or to compare results of different studies with one another. To address this weakness, Fantuzzo et al. (2000) conducted a focus group of parents of children in early childhood programs for low-income, urban, predominantly African American areas. The focus group developed items representing different types of PI based on Epstein's typology. The primary caregivers of 641 children completed the 42 items created by the focus group. With exploratory factor analysis, three dimensions of PI were identified: Home-Based Involvement, School-Based Involvement, and Home-School Conferencing. Each of these dimensions had sufficient internal consistency, with Cronbach's α ranging from .81 to .85.

Home-Based Involvement includes activities that promote learning in the home. Examples are creating an environment where the child can engage in learning activities, providing learning experiences for the child at home and in the community, and positively reinforcing the child's efforts on schoolwork. School-Based Involvement includes items measuring involvement activities at school, such as volunteering in the classroom. Home-School Conferencing includes communication with the teacher and other school personnel. The items measuring these factors became the Family Involvement Questionnaire for Early Childhood or FIQ-EC (Fantuzzo et al., 2000).

The second weakness Fantuzzo et al. (2000) identified was that existing PI literature did not take into account the developmental aspect of PI. To address this issue,

the FIQ-EC was developed specifically to measure PI in early childhood education (i.e. pre-k through first grade). A later study by Manz et al. (2004) used the FIQ-EC to develop a similar measure for the elementary school ages: the Family Involvement Questionnaire – Elementary (FIQ-E). Similar procedures were used to develop the FIQ-E. A focus group was conducted with parents of low-income, urban, predominantly African American elementary school students, to expand and revise the items of the FIQ-EC in order to measure PI activities, according to Epstein's typology, that are typical for parents of elementary age children. These items were then given to the primary caregivers of 444 elementary students. Through factor analysis the same three dimensions of PI were identified: Home-Based Involvement, School-Based Involvement, and Home-School Communication. Cronbach's α coefficients ranged from .84 to .91 (Manz et al., 2004).

The third major weakness of the PI literature Fantuzzo et al. (2000) identified was that PI was measured in a unidirectional manner. In most studies up until then, PI was assessed mostly by considering school-based involvement activities using teachers' reports rather than parents' self reports (Fantuzzo et al., 2004). By focusing solely on this type of PI, other important PI activities were not considered. Fantuzzo et al. (2000) and Manz et al. (2004) addressed this issue by taking into account all types of PI identified in Epstein's typology in the development of the FIQ-EC and the FIQ-E.

According to the developmental-ecological theoretical model (Bronfenbrenner, 1986) that Fantuzzo and colleagues used as the basis of their work, there are several

different spheres of influence on children's developmental outcomes. The family is conceptualized as the most important sphere of influence in early childhood (Fantuzzo et al., 2000), and one of the most important spheres of influence in the elementary school years. As such, there are many ways in which families can influence children's progress in school, and partnerships between the family and school are beneficial for children's learning. Results of studies utilizing the FIQ-EC and the FIQ-E offer support for this theoretical viewpoint.

Results (Fantuzzo et al., 2000; Manz et al., 2004) suggested that PI is indeed a multidimensional construct. In validation, the items of the FIQ-EC and the FIQ-E revealed three dimensions that include all types of involvement of Epstein's typology: Home-Based Involvement includes type 1 (basic obligations) and type 4 (learning activities at home), School-Based Involvement includes type 3 (involvement at school) and type 5 (involvement in advocacy, decision making and governance), and Home-School Communication or Conferencing includes type 2 (communication). Exploratory and confirmatory factor analysis supported that PI is a multidimensional construct, and empirically validated Epstein's typology (Fantuzzo et al., 2000; Manz et al., 2004).

Further, the results of several studies using the FIQ-EC and FIQ-E suggest that the different dimensions of PI are indeed related to favorable outcomes for children's learning and school behavior. Fantuzzo et al. (2004) found that although all three types of PI were significantly and positively correlated with several measures of learning and school behaviors, Home-Based Involvement was the only significant predictor of those

variables when the other two were considered simultaneously. Home-Based Involvement of parents of children in early childhood programs measured in the fall was positively related to the classroom competencies, approaches to learning, and motivation (and negatively related to behavior problems in the classroom), as reported by teachers in the spring. Home-Based Involvement measured in the fall was also related to higher scores on a standardized measure of receptive vocabulary in the spring (Fantuzzo et al., 2004). McWayne, Hampton, Fantuzzo, Cohen and Sekino (2004) found that involvement at home and contact with school was related to higher levels of social skills, academic achievement in reading and mathematics, and greater academic motivation in a sample of urban, low-income kindergarten students. Low levels of PI were related to externalizing and internalizing behavior problems in school (McWayne et al., 2004).

Several demographic variables were found to be related to PI. Parents' completion of high school was related to School-Based Involvement and Home-School Communication for early childhood and elementary school children (Fantuzzo et al., 2000; Manz et al., 2004), but not for Home-Based Involvement in early childhood (Fantuzzo et al., 2000). In contrast, in the elementary school age sample, the completion of high school was significantly related to Home-Based Involvement (Manz et al., 2004). It is hypothesized that as parents have experienced success in school, evidenced by the fact that they graduated from high school, they may feel more comfortable interacting with teachers and other school personnel, and they may also feel more comfortable assisting with homework (Fantuzzo et al., 2000; Manz et al., 2004). In contrast to

elementary school, in early childhood programs education related activities at home generally do not require academic skills. This may explain why parents' completion of high school was not a significant predictor of Home-Based Involvement in early childhood, but was found to be significantly related to Home-Based Involvement in elementary school (Manz et al., 2004).

Another demographic variable that was significantly related to PI was family composition. In the early childhood sample, two-parent families had higher levels of Home-Based Involvement and Home-School Conferencing than other types of families (e.g. single parent, extended, or foster family) (Fantuzzo et al., 2000). In the elementary school sample, single and two-parent families had greater levels of Home-School Communication. Families with more than five children living in the home had lower levels of Home-Based involvement in the elementary school sample, and families with boys had more Home-School Communication than families with girls (Manz et al., 2004).

Finally, the age of the child was a significant variable in the early childhood sample. There was a decline in PI from pre-k to first grade (Fantuzzo et al., 2000); however, no such decline was found in increasing grade levels in the elementary school sample (Manz et al., 2004).

The work of Fantuzzo and colleagues has extended the PI literature in two important ways. First, it empirically validated Epstein's typology and offered a solution to the critique that Epstein's typology was too broad, by consolidating the five types of PI

into three dimensions of PI (Fantuzzo et al., 2000; Manz et al., 2004). Second, in contrast to the prevailing view that parents in low-income, urban areas are not involved in their children's education, results of the research of Fantuzzo and colleagues suggest that these parents are indeed involved, but that the most important type of PI for this population is Home-Based Involvement. Most studies of PI previously used primarily teachers' reports to measure activities that fall in the category of School-Based Involvement and Home-School Communication, which resulted in an incomplete and inaccurate picture of PI for this population (Fantuzzo et al., 2000, 2004; Manz et al., 2004; McWayne et al., 2004). An important implication of these findings is that PI may take different forms for people of different socio-economic and cultural backgrounds. For teachers, it is important to take these differences into account when working with parents of diverse student populations. Overall, the work of Fantuzzo and colleagues shows that PI is an important protective factor for children in low-income, urban areas, who are generally at greater risk for low academic achievement and school failure.

Hoover-Dempsey and Sandler's model – explaining PI. Whereas Epstein and colleagues and Fantuzzo and colleagues have focused on describing and operationalizing PI, Hoover-Dempsey and Sandler (1995)[1] have created a theoretical model that aims to explain *why* parents choose to become involved in their children's education, and *how* this involvement benefits their children's academic achievement and school behavior.

[1] In 1994, Grolnick & Slowiaczek also developed a multidimensional model of PI, using motivational theory. This model is described in the Father Involvement section of this literature review.

Thus, Hoover-Dempsey and Sandler have created the most comprehensive model of PI, and many researchers have used it to investigate the variables that explain and predict PI.

Hoover-Dempsey and Sandler (1995) argued that, although the PI literature up to that point supported PI as a positive influence on children's academic achievement and school functioning, the questions of *why* parents become involved and *how* this involvement influences child outcomes have not been answered. Whereas the literature has provided some important predictive variables for parent involvement (such as parent education and marital status), these variables do not explain the parents' decision-making process for becoming involved. Hoover-Dempsey and Sandler's (1995) theoretical model was designed to provide specific answers to these questions. Moreover, the variables selected for this model represent factors that may be specifically salient from the parents' perspective, and could be subject to intervention.

Because motivation in central in Hoover-Dempsey and Sandler's model, it is necessary to make a brief detour into a discussion of the motivation literature on which this model is largely based, before discussing the model in full. The first level of Hoover-Dempsey and Sandler's model seeks to explain the variables that motivate parents to be involved in their child's education. Bandura (1977) coined the term "self-efficacy" on which Hoover-Dempsey and Sandler have based their model. Bandura (1982) defines self-efficacy as follows: "Perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (1982, p. 122). According to Bandura's research, self-efficacy is a key variable in

motivation and behavior. Self-efficacy determines how much effort a person puts into an endeavor, and how long someone will persist in the face of obstacles. People with high levels of self-efficacy for a particular task generally show more persistence and have better results than people with low self-efficacy. People with low self-efficacy for a particular task tend to dwell more on their perceived lack of capability. They tend to imagine obstacles to be greater than they really are. And they tend to give up more easily, which leads to lower results and reinforces the perception of low self-efficacy. Judgments of self-efficacy are based on four sources of information: the experience of successful performance of the task, vicarious experiences (observing others perform the task successfully), verbal persuasion and social influence, and physiological states (e.g. stress, arousal). Authentic mastery experiences are the most influential in the development of self-efficacy beliefs (Bandura, 1982).

Hoover-Dempsey and Sandler's (1995) original model consists of five levels with theoretical variables explaining parents' decisions to become involved (level 1), their choice of involvement forms (level 2), mechanisms through which PI influences child outcomes (level 3), tempering/mediating variables (level 4), and child/student outcomes (level 5). See figure 2 for a graphic representation of this model.

Level 1 of the model represents the variables influencing parents' decision to become involved. This decision is influenced by three variables: parents' role construction, sense of efficacy, and general opportunities and demands for involvement. Parental role construction represents beliefs and ideas about the parental role. These ideas

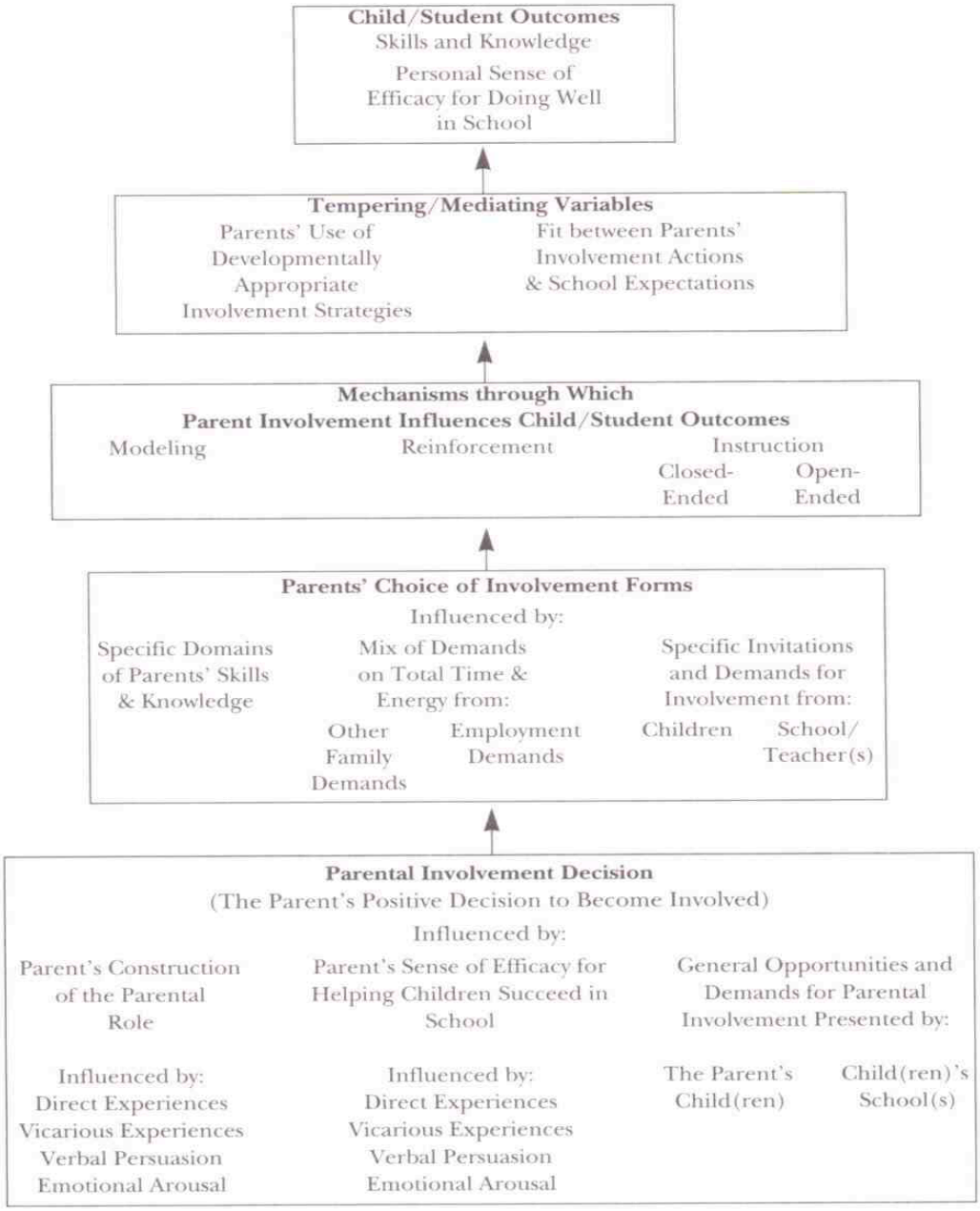


Figure 2. Causal and Specific Model of Parental Involvement, Focused on Variables of Major Significance That Are Also Subject to Intervention and Change

Figure 2. Causal and Specific Model of Parental Involvement

Taken from Hoover-Dempsey and Sandler, 1995, p. 327.

are influenced by their experience of their own parents' involvement in school, and observation or modeling of other important people in their environment, such as the school involvement activities of their peers. Having a parental role construction that includes the belief that it is important to be involved in school is a necessary, but not sufficient condition for PI. An important second variable is the sense of efficacy, which is the belief that one has the skills and knowledge to be successfully involved with the child's education. This is influenced by direct experience of success in this area, vicarious experience or observing others be successful with PI, verbal persuasion about the importance of PI by others, and emotional investment in one's own role in the child's success in school. The third variable influencing parents' initial decision to become involved is the general opportunities and demands for involvement by the child or the teacher. In this model, general opportunities and invitations are conceptualized as distinct from specific invitations and demands. General opportunities and demands are conceptualized as a welcoming school climate that invites PI, and children's general enthusiasm about PI.

Level 2 of the model represents the variables that influence parents' specific choices of the kinds of PI they will engage in. Hoover-Dempsey and Sandler (1995) refer to Epstein's typology when discussing possible types of PI activities. The variables that influence these choices are conceptualized as: parents' specific knowledge and skills, employment and other family demands, and specific invitations and demands for PI from

the child and the school. Parents' specific knowledge and skills influence the kind of direct help they provide the child at home, or the types of volunteer activities they engage in at school. Employment and other family demands restrict the time and energy parents have available to engage in PI. If the parent, based on their role construction and sense of efficacy, has decided that it is important to be involved, then demands on time and energy are thought to primarily influence choices of the type of involvement, rather than the decision whether to be involved. Finally, whereas general opportunities and invitations from the child and the school are thought to influence the decision whether to become involved, specific invitations, such as requests from the child or teacher to help with homework or chaperone a field trip, are conceptualized to influence the choice of specific involvement activity.

Levels 3 and 4 represent the way in which PI influences child or student outcomes (level 5). Level three represents the mechanisms of influence: modeling, reinforcement, and direct instruction. These mechanisms operate in the context of other sources of influence on children's school-related outcomes (e.g. the quality of the teacher and curriculum, the child's ability, etc.). The parent models attitudes and behaviors related to school (e.g. behaving in ways that demonstrate the parent values school and thinks success in school is important) that can influence the child's own school related attitudes and behaviors. Through reinforcement, the parent can increase specific child behaviors related to school success. Direct instruction can occur as open-ended (e.g. enabling the child to create their own problem solving strategies) or closed-ended instruction (e.g.

telling the child specifically how to solve a problem) and it usually takes place in the context of homework. Level 4 represents mediating variables between level 3 and level 5 and includes the use of developmentally appropriate PI activities and strategies, and the fit between PI activities and school expectations. Finally, level 5 (or the child or student outcomes) are in the domain of skills and knowledge, and personal sense of efficacy for doing well in school (Hoover-Dempsey & Sandler, 1995).

Walker, Wilkins, Dallaire, Sandler, and Hoover-Dempsey (2005) have taken Hoover-Dempsey and Sandler's (1995) model, and operationalized it by developing scales to measure the various aspects of the first two levels of the model. The referenced article goes into great detail about the way in which the respective constructs were defined and operationalized. Based on their work, the model was revised. In the revised model, levels 1 and 2 are consolidated into one, with three main constructs: 1) parents' motivational beliefs—which includes role construction and sense of efficacy, 2) parents' perceptions of invitations for involvement from others—which includes general and specific invitations from the school and the child, 3) parents' perceived life context—which includes demands from work and family, and specific knowledge and skills. The revised model also includes links representing the relationships between the variables at the different levels. Finally, because the revised model consolidates the original model's first and second levels into one, the dependent variable of level 1 of the revised model is defined as parents' home- and school-based [involvement] behaviors. Figure 3 graphically represents the revised model.

In a third revision of the model (Hoover-Dempsey, Whitaker & Ice, 2010; Walker, Shenker & Hoover-Dempsey, 2010), level 1 includes personal motivators (role construction and efficacy), parents' perceptions of conceptual invitations for involvement (invitations from the school, the teacher, and the child), and life context variables (knowledge and skills, time and energy, and family culture). Family culture is added as a third life context variable that was absent in the first two versions of the model. Level 1.5 describes the various involvement forms. The earlier versions of the model were limited to home-based and school-based PI activities, but the newer version also includes values, goals, expectations and aspirations, and parent-school communication. Level 2 describes the mechanisms through which PI is thought to influence students' educational outcomes (encouragement, modeling, reinforcement, and instruction).

Results of a hierarchical regression analysis suggested that the level 1 constructs explained 33% of the variance of home-based involvement, and 19% of school-based involvement behaviors. The strongest predictor of home-based involvement was specific invitations from the child, which explained 21% of the variance, and the strongest predictor of school-based involvement was parents' motivational beliefs.

In a review of the literature, Hoover-Dempsey et al., (2005) reported supporting evidence for the relevance of the constructs in their revised theoretical model as predictive variables for PI in diverse samples. Moreover, the authors make the point that two of these variables, (motivational beliefs and perceived invitations from others), can be successfully targeted for intervention to increase PI. General invitations from the

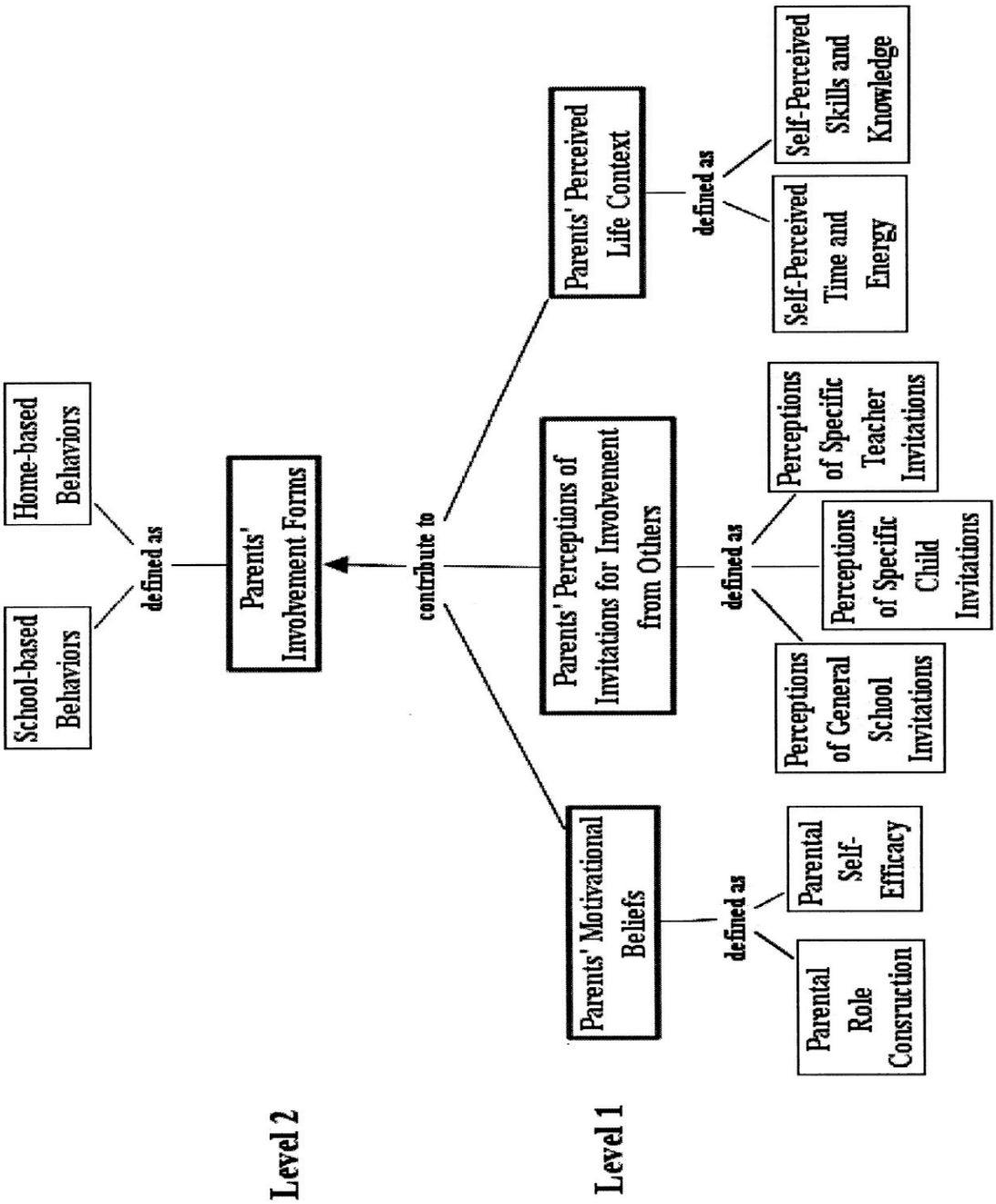


Figure 3. Levels 1 and 2 of Hoover-Dempsey and Sandler's theoretical model of the parental involvement process. Taken from Walker et al., 2005, p. 88.

school (i.e. a welcoming school climate), and specific invitations from the teacher and child, can play an important role in increasing PI behaviors, particularly for parents with weaker motivational beliefs. Especially teacher invitations, when specific, targeted, and manageable for parents, are powerful ways to increase PI in a variety of activities across different school populations and grade levels (Hoover-Dempsey et al., 2005).

Although the family's perceived life context may not be something that can be directly influenced by intervention, there are many ways in which schools and teachers can invite parent involvement in ways that are sensitive to parents' available time and energy, knowledge and skills, and family culture. The results of several studies cited by Hoover-Dempsey et al. (2005) (see also Fantuzzo et al., 2000), suggest that although lower socio-economic status is associated with barriers to PI, many parents find ways to become involved that fit into their personal circumstances, but often in ways that are not directly visible to schools. Hoover-Dempsey et al. (2005) offer several suggestions for practices schools can use to increase PI. First, they suggest that principals have a key leadership role in creating a welcoming school climate. Second, principals need to empower teachers to actively invite parent involvement. These invitations need to communicate that all parents have a role in children's school success. It is also important that teachers offer specific suggestions to parents about what they can do to help their child.

Green, Walker, Hoover-Dempsey, and Sandler (2007) used the measures created by Walker et al. (2004) to empirically test the revised model. Using a sample of 853

parents (74% mothers and 18% fathers) of elementary and middle school students in an ethnically diverse metropolitan school district, they used the three independent variables (motivational beliefs, perceived invitations, and perceived life context) to predict home-based and school-based involvement activities, when controlling for parents' socio-economic status. Results of this study suggest that the model significantly predicts both home-based (R^2 = .39), and school-based involvement (R^2 = .488). Significant predictor variables for home-based involvement were self-efficacy, specific child invitations, and perceptions of available time and energy. Significant predictor variables for school-based involvement were active role construction, self-efficacy, specific teacher invitations, specific child invitations, and perceptions of available time and energy. SES was not a significant predictor for either home-based or school-based involvement. These results offer support for the validity of the theoretical model proposed by Hoover-Dempsey and Sandler. Particularly, parents' interpersonal relationships with their child and teachers appear to be more influential for PI than SES.

Maríñez-Lora and Quintana (2009) used the constructs of Hoover-Dempsey and Sandler's model to compare PI in an African-American and Latino sample. They found differences in patterns of PI and the effects on PI of three of the predictor variables of Hoover-Dempsey and Sandler's model. For Latino parents, home-based involvement was predicted by role construction that views parents as responsible for their child's education (parent-focused role construction) and perceived teacher invitations. Their school-based involvement was predicted by their sense of efficacy and perceived teacher invitations.

For African American parents, perceived teacher invitations was the only significant predictor for both types of PI. These differences suggest that cultural differences between these groups may influence what motivates parents to be involved. For both groups, perceived teacher invitations was the only consistently significant predictor of both home-based and school-based involvement practices and mediated the effects of income, race, and ethnicity on both types of PI. These results support the results of other studies that have highlighted the importance of teacher invitations on PI (e.g. Anderson & Minke, 2007; Bempechat, 1990; Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991; Fan & Chen, 2001; Green et al., 2007; Hoover-Dempsey et al., 2005; Jeynes, 2005, 2007; Overstreet et al., 2005; Simon, 2004; Watkins, 2001). Additionally, variables related to race, ethnicity, and socio-economic status need to be taken into account in order to more fully understand differences in PI practices and beliefs. Of note, fathers made up less than 9% of the sample in this study.

Ice and Hoover-Dempsey (2011) used the model to investigate differences between parents who home-school their children, and parents with children in public school. Descriptive statistics regarding the sex of participating parents and children was not reported in this study. Motivational beliefs (both role construction and efficacy) and child invitations significantly explained home-based PI for both home-schooling parents, and parents with children in public school. Invitations from the teacher and general invitations from the school were not included as variables in this study. This study also provided empirical support for the validity of Hoover-Dempsey and Sandler's model for

explaining parents' motivations to engage in PI.

Overall, the theoretical model of Hoover-Dempsey and Sandler has contributed to the PI literature in several important ways. This model is the first to offer a theoretical explanation of why parents become involved, and the process by which involvement helps children's educational outcomes. This model is also the first to include psychological variables of the parent to explain what motivates parents to become involved. Most importantly, this model offers avenues for intervention to increase PI. Because PI is an important protective factor, with widely demonstrated benefits for children's academic achievement and other areas of school functioning, having avenues for intervention is important for educators seeking to improve student performance and functioning.

Summary of key variables in PI. In the PI research literature (based on the theoretical models of Epstein and colleagues, the operationalization of Epstein's typology by Fantuzzo and colleagues, and Hoover-Dempsey and Sandler's theoretical model), studies using both unidimensional and multidimensional definitions of PI have consistently found several variables to be important in predicting PI and related educational outcomes of children. Of all the variables related to PI, teacher and school practices stand out as the most influential (Anderson & Minke, 2007; Bempechat, 1990; Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991; Green et al., 2007; Hoover-Dempsey et al., 2005; Overstreet et al., 2005; Simon, 2004; Watkins, 1997). In addition to teacher invitations, direct invitations for involvement from the child are also a

strong predictor of PI (Green et al., 2007). The types of PI that appear to have the strongest link to academic achievement are home-based PI practices (Fantuzzo et al., 2000; Hampton et al., 2004; Manz et al., 2004), particularly parents' expectations and aspirations related to students' achievement (Fan & Chen, 2001; Green et al., 2007; Jeynes, 2005, 2007).

Barriers to PI. Christenson and Sheridan (2001) pointed out that there is *always* a relationship between families and schools; however, the quality of the relationship varies. A poor relationship between families and schools is often at the basis of barriers to PI. Attitudes of school personnel that lead to barriers in PI include making assumptions about families based on broad categorizations. This often leads to labeling families negatively and placing blame. Differences between cultural assumptions and the practices of families and schools are often labeled as deficits, based on stereotypes. When this happens, school personnel often lose sight of *who* family members are as unique individuals. Schools often fail to see the ways in which families already support their child's schooling, especially if the support families offer is different from the school's conceptualization of PI. Christenson and Sheridan (2001) also cited research by Davies (1993), who studied family-school relationships in three different countries. The results of that study suggested that families and schools often have vastly different perceptions about the communication between them. Parents whom the school labeled as "difficult to reach" indicated that they cared very much about their children's education, and were willing to come to school whenever they were invited; however, they were unclear about

rules and expectations from the school, and were not aware that their involvement was wanted or valued. School practices that lead to barriers in the relationship with families include an institutional approach to communication with families and a lack of individualized, family-centered communication. Schools often focus on weaknesses and deficits rather than strengths and assets. When weaknesses and deficits are defined, school personnel often give recommendations without soliciting families' ideas or input, and without recognizing that the parents are in fact the people who know their child best. Such an "expert stance" provides a barrier to a true partnership on equal footing between families and schools. Other school practices that lead to barriers in the relationship include a "menu-driven approach" to family involvement with a limited conceptualization of the forms that family involvement can take. Finally, the practice of contacting families only when there is a problem is a barrier in the relationship between families in schools. Often, schools have attempted to address a problem without involving families, only to call on them for help before a positive, collaborative relationship is established. In meetings between families and school officials (such as IEP meetings), family members often find themselves outnumbered by school personnel. A helpful solution would be asking families who they would like to have present at these meetings. Parent factors that may lead to barriers in their relationship with schools include negative memories about their own school experiences, economic and time constraints, and differences in cultural and linguistic practices (Christenson & Sheridan, 2001).

Other barriers to PI described in the literature include discrepancies between parents' and teachers' perceptions of PI (Dauber & Epstein, 1989; Epstein, 1986; Epstein & Dauber, 1991; Lawson, 2003; Minke & Anderson, 2005) and difference in perceptions of communications from teachers (Halsey, 2005; National Council for Jewish Women, 1996). Trust between parents and teachers is key, and a lack of trust can impede PI practices (Adams & Christenson, 2000). Because the most influential form of PI consists of home-based practices, teachers may not be aware of the extent of involvement of some parents, particularly parents of low SES backgrounds (Minke & Anderson, 2005).

Contributing to these barriers are different assumptions about childrearing, the roles of parents and teachers, and the extent of overlap between these roles. Lareau (2003) described distinctly different assumptions about childrearing in middleclass families, and in working class or poor families as assumptions of "concerted cultivation" as compared to "natural growth." Lareau described the "concerted cultivation" approach to childrearing as parents taking an active role to shape their children's development by teaching their children to reason and negotiate with adults, scheduling extracurricular activities in order to promote the development of their talents and skills, and active intervention and advocacy for their children in institutions such as school and healthcare. The "natural growth" approach to childrearing is described as a situation in which there is a more distinct boundary between adults and children, with a stronger hierarchical authoritarian relationship. Children have more control over their leisure activities and spend more time with relatives and peers in child-directed play. Parents see their role

primarily as providing love, safety, food, shelter, and clothing to their children in the face of often formidable economic challenges. Roles of parents and teachers are seen as more distinct. According to Lareau, social inequality is perpetuated because the "concerted cultivation" approach is more in sync with assumptions about child rearing and child development of education professionals. Therefore, children from middleclass families who are raised with "concerted cultivation" assumptions develop a sense of entitlement toward institutions such as schools, whereas children who are raised with "natural growth" assumptions develop a sense of distance, discomfort, and constraint when interacting with educators and other authority figures. Although there are advantages and disadvantages to both approaches to childrearing, when it comes to communication and relationships with school personnel, the "concerted cultivation" approach seems to give middleclass families advantages and privileges that working class and poor families do not have (Lareau, 2003).

Implications for school practices. Christenson and Sheridan (2001) stressed the importance of a collaborative partnership approach to the family-school relationship. It is essential for school personnel to put the *relationship* with families first, suspend judgment, and take the perspective of the parents in their unique situation. The foundation of this partnership is shared goals between parents and schools for the success of the child. Family strengths, complimentary expertise, and the responsibilities of families and schools need to be emphasized in this shared partnership. The work of Minke and Anderson (2005, 2007) offered practical ways in which such a collaborative

approach to PI can be implemented in schools.

Minke and Anderson (2005) described the challenges involved with interventions to increase PI, and the unintended negative consequences that these efforts may have on the relationships between parents and schools. Some of these challenges include increased conflict between parents and children when parents attempt to comply with the school's request to help with homework, or embarrassment about difficulties parents may have with the content of the homework. Parents and schools frequently have a different concept of what it means to be involved. Schools tend to define PI as school-based involvement, whereas many parents, particularly working class parents, define PI as home-based, and as providing basic necessities and protection to their children. In addition, these parents may have the view that schools and parents have separate responsibilities, and that education is mainly the responsibility of the school. These differences in views may lead to adversarial relationships between teachers and parents, particularly when the parents feel that they are blamed when their child has difficulties.

Minke and Anderson (2005) proposed a different, more family-centered, collaborative approach to PI. They emphasize an expansive view of PI, shared goals, trusting relationships, mutual respect, and complementary expertise. Family-school collaboration would involve providing support to families, learning from families, and respecting differences in the way in which roles are defined. Rather than being an isolated set of activities, family-school collaboration is conceptualized as an essential element of student success that permeates every aspect of schooling. There should be

many different options for PI, so that every family has the opportunity to be involved in some form. In this approach there is an emphasis on supportive relationships between families and educators that are based on mutual respect and trust.

Rather than using a deficit model, the collaborative approach is based on family strengths and empowerment. Families should define their own priorities, and services from the school should be based on the individual needs of families. The role of the school is to support parents and their informal social networks of support. The educator's role is not that of an expert, but of a partner with the parents in helping the student succeed. Obstacles to the implementation of a collaborative PI approach in schools include a lack of teacher training in building relationships with parents, particularly the communication skills needed to cope with emotions and conflict.

Anderson and Minke (2007) used the first level of Hoover-Dempsey and Sandler's (1995) model to investigate what motivates parents to become involved with school. Their data suggested that teacher invitations were the strongest predictors of both home-based and school-based PI, and that teacher invitations mediated parents' role construction, i.e. that parents in their sample defined their role construction based on invitations they received from the teacher. The implication of this finding is that the school plays a crucial role in establishing PI, and that intervention (such as the collaborative approach Minke and Anderson propose) could be successful. It should be noted that their sample consisted of 80% mothers and 10% fathers.

Despite the wealth of information about barriers in the family-school relationship,

and a strength-based partnership approach to overcome these barriers, not much is known about the relationship between schools and fathers, or how to promote a strong, positive, strength-based relationship between schools and fathers. It appears that "parents" and "families" are often treated as synonymous with "mothers," given that most of the samples used to study family-school relationships include vast majorities of mothers. More research is needed to study the father-school relationship more specifically.

Father Involvement

Until the last few decades, the influence of fathers on child development has been largely neglected, or considered secondary and subordinate to the influence of mothers. Recent research, however, suggests that fathers make an important and unique contribution to the development of their children. In the book *The Role of the Father in Child Development* (Lamb, 2004) a comprehensive review of the literature is offered discussing in detail the research findings on father involvement in different cultural, social, familial, and historical contexts. For a complete review of the literature on the role of the father, the reader is referred to this source. In the present literature review only a brief summary is provided of father involvement in the family. The section is broken up into research on residential biological fathers, non-residential biological fathers, stepfathers, and gay fathers. The next section will provide an overview of recent research examining father involvement in education. This section is broken up into discussions of the results of several studies based on large, nationally representative samples in the United States and Britain. A theoretical model comparing the influence of mother

involvement and father involvement on children's educational outcomes is described (Grolnick & Slowiaczek, 1994), in addition to other studies that have compared mother and father involvement in education. Finally, this section will provide a summary of studies of non-residential father involvement in education. Methodological issues with existing research in father involvement will be discussed as well.

Brief overview of father involvement in the family.

Residential biological fathers. Research on father involvement has generally focused on three components: (1) paternal engagement, or the time fathers spend directly interacting with their child; (2) accessibility and availability, or the time that the father is physically present in the child's environment, whether or not the father is directly interacting with the child; (3) responsibility, which is conceptualized as indirect care, i.e., making sure the child is taken care of, arranging doctor's appointments, buying new clothes, etc. Of these three components, the first two have received the most attention. Research with large national samples that focus mainly on the amount of time fathers spend with their children has revealed that residential fathers in the United States spend approximately 70% of mothers' time engaged with or accessible to their children, and that play is the most frequent type of engagement activity for fathers of young children. In studies with large, national samples, no consistent differences are found between fathers of different races, ethnicities, and socio-economic status. Fathers' education level is related to levels of father involvement, however. More highly educated fathers are more accessible, spend more time engaged with their children, and they also spend more

time on achievement-related and teaching activities. There has been an increase in time fathers spend with their children in recent decades (Pleck & Masciadrelli, 2004).

One must view father-child relationships in context of the entire family system. According to Family Systems Theory, all parts of the system reciprocally influence one another. Particularly the quality of the marital relationship is strongly related to the level of father involvement, and the quality of father-child interactions (Lamb & Lewis, 2004; Parke et al., 2004; Pleck & Masciadrelli, 2004).

In the United States and Western Europe, one of the unique features of fathers' interaction with (young) children is the way they play. Fathers' play is generally more physically stimulating and unpredictable than mothers' play, and young children often prefer to play with their fathers. Although fathers and mothers generally do not differ in sensitivity and responsiveness, and children are often securely attached to both mothers and fathers, their playfulness makes the father a salient figure for the child (Lamb & Lewis, 2004).

Recent research further suggested that fathers and mothers may impact children's development differently. Mothers affect their children's social development through secure attachment relationships. There is much less clarity about the effect of children's attachment to their father. Fathers' play sensitivity, however, is predictive of later social relationships, particularly children's later popularity with peers (Lamb & Lewis, 2004; Parke et al., 2004). Thus, fathers make a unique contribution to children's later social outcomes, independent of mothers' contributions. In middle childhood, fathers' advice,

social guidance, rule provision, and managing of social opportunities for their children are related to children's social competence and popularity with peers. In adolescence, father involvement is positively associated with youngsters' popularity with the peer group, whereas mother involvement is related to adolescents' quality of relationship with their best friend (Parke et al., 2004). Other areas of functioning that are uniquely affected by father involvement include children's cognitive competence and academic achievement (Lamb & Lewis, 2004), which will be discussed in greater detail below. Father involvement is further related to children's social-emotional adjustment, including lower levels of internalizing and externalizing behavior problems, higher levels of self-esteem in children and adolescents, and higher levels of life satisfaction and reduced risk for psychological maladjustment for adults (Flouri & Buchanan, 2002; Lamb & Lewis, 2004; Parke et al., 2004; Pleck & Masciadrelli, 2004).

Non-residential biological fathers. Research on father absence has consistently revealed that children's academic and socio-emotional functioning is negatively impacted when they have limited or no contact with their father (Parke et al., 2004; Pleck & Masciadrelli, 2004). There is considerable variability in the amount of contact non-residential biological fathers have with their children. It is estimated that between 25 and 50% of children with a non-residential father have no contact with him (Amato & Sobolewski, 2004). Variables that are positively related to contact between children and non-residential fathers include whether the father pays child support, geographical proximity to the child, joint custody, early establishment of a reliable visitation schedule,

high SES, feelings of competence as a parent, and closeness to the child(ren). Race and ethnicity are not strong predictors of non-residential father involvement. New relationships and marriages tend to decrease contact with biological children from previous marriages. Also, contact with children tends to decline over time. The type of contact between non-residential parents and children is often social rather than instrumental, and tends to focus on leisure activities (Amato & Sobolewski, 2004).

In studying the effects of non-residential father involvement, research generally focuses on the fathers' financial and social capital. When non-residential fathers pay child support, this is positively related to academic achievement, and negatively related to children's behavior problems in school. These beneficial effects do not vary with sex and race of the child. It is hypothesized that fathers' financial capital contributes positively to children's health and nutrition, the amount of stimulation that is available at home, access to educational resources, and possibly to lowering mothers' stress levels. It must also be noted that child support is positively related to father involvement. Regarding social capital, research fails to show consistent positive associations between father contact and measures of children's adjustment and well-being. This may be because contact with the father may expose children to conflict between their parents, which is negatively associated with children's adjustment and well-being. Since contact between non-residential fathers and children is often recreational rather than instrumental, it could be that these fathers do not often engage in authoritative parenting (e.g. enforcing rules, providing monitoring and supervision, help with homework, giving advice, etc.). Studies

that have investigated the quality of contact between non-residential fathers and children indeed show a positive relationship between fathers' authoritative parenting behaviors and children's academic achievement, lower levels of behavior problems, and fewer internalizing problems. Also, studies published after 1990 showed significant positive relationships between frequency of contact between non-residential fathers and children's functioning, whereas older studies fail to show these relationships. It may be that there has been a cultural shift in the roles of non-residential fathers in their children's lives. Joint custody, low levels of conflict, and high levels of cooperation between divorced mothers and fathers are also positively related to children's adjustment (Amato & Sobolewski, 2004).

Stepfathers. Although stepfathers add financial capital to divorced mothers' households, children with stepfathers appear to be no better adjusted than children in single parent families. Contrary to what research might suggest about the positive effects of child support, apparently it is not the money itself that makes the difference in children's functioning. The process of remarriage is often stressful for children. The divorce rate for second and third marriages is much higher than for first marriages, particularly if there are stepchildren in the household. Therefore marriages with stepparents are often less stable and there may be more tension and conflict between the stepparents. Fewer stepfathers have an authoritative parenting style than continuously married biological fathers (30% vs. 60% respectively). Children with stepfathers often leave home earlier, either to live with their biological father, or to live independently.

Factors that promote positive relationships between children and their stepfathers include leaving discipline to the mother, presence of biological children of the stepfather in the home, a happy marriage between the mother and stepfather, mothers encouraging shared activities between the stepfather and stepchildren, and a relationship between the children and the biological father independent of the stepfather. Younger children generally adjust more easily to stepfathers than adolescents, and boys tend to adjust more easily than girls. Positive relationships between children and stepfathers are related to fewer internalizing and externalizing problems, and more positive outcomes for adolescents. Positive relationships between children and stepfathers appear to be especially beneficial for African American children, and are associated with decreased risk for dropping out of high school and teenage pregnancy (Amato & Sobolewski, 2004).

Gay fathers. Gay fathers are a very diverse group. A large proportion of gay fathers are divorced biological fathers from previous heterosexual marriages. Many gay couples with children are foster parents or adoptive parents, and some gay men become fathers with surrogate mothers or (lesbian) co-parents. Because of the heterogeneous nature of gay fathers, this is a group that is difficult to study. The results of some studies suggest that non-residential gay biological fathers are more likely to exhibit authoritative parenting behaviors than heterosexual non-residential biological fathers, and to place less emphasis on their role as providers. Research further suggests that children who grow up with gay fathers are equally well adjusted as children growing up with heterosexual parents (Patterson, 2004).

Father involvement in education.

Studies of father involvement in education using NHES data. One line of research on father involvement in education used data from the National Household Education Survey (NHES) of the National Center for Education Statistics (Nord et al., 1997). Data were obtained in 1996 from the parents of 16,910 K-12 students in the United States. In this survey, father and mother involvement in school was conceptualized as Epstein's type 2 and type 3 involvement, and was operationalized using four items inquiring about how often mothers and fathers attend a general school meeting, attend parent-teacher conferences, attend school or class events, or volunteer at the child's school. A parent was considered "highly involved" if they report participating in three out of four of these activities.

The data suggested that in two-parent families, fathers were less likely than mothers to be involved in school; only 27% of fathers reported being highly involved compared to 56% of mothers. In single-parent families, single fathers and single mothers showed virtually identical patterns of involvement. The pattern of involvement in single-parent families was very similar to that of mothers in two-parent families. Fathers were more likely to attend general school meetings and school or class events than to attend parent-teacher conferences or volunteer at the school (Nord et al., 1997; Nord, 1998a). The data of this study further suggested that the proportion of highly involved mothers declined steadily as children progress in grade level, whereas father involvement dropped

between the elementary and middle school grades, from 30 to 25%, but then remained steady through high school, at around 23%. The proportion of highly involved single fathers did not drop between elementary school and middle school, but then dropped to about half by high school, from 53 to 27% (Nord et al., 1997).

Although home-based involvement activities were not included in the construct of school involvement in this study, the data did suggest that parents who are highly involved in school-based activities are also more likely to expose their child to educational experiences (e.g. visiting museums, going on outings), have high educational aspirations for their children, and to be connected to community organizations and resources (Nord et al., 1997).

Variables that predicted higher levels of father involvement in two-parent families included fathers' education, the level of mothers' involvement, mothers' employment, being married to the child's biological mother vs. stepmother, the number of activities shared with the child, public vs. private school, the child's grade level, and the child's sex. Involvement increased with fathers' education level, the level of the mothers' involvement, the number of hours the mother was employed, and with the number of activities the father shared with the child. Fathers were more likely to be highly involved if they were married to the child's stepmother than their child's biological mother, and if the child attended private school. In the secondary grade levels, fathers were more likely to be highly involved with the education of boys in higher grades. Variables that predicted the involvement of single fathers include education and grade level. Single

father involvement increased with the father's education level. In the high school grades, single father involvement decreased. A positive school climate was positively related to both mother and father involvement (Nord et al., 1997).

The data of the NHES suggested that fathers make an important, independent contribution to their children's academic achievement and school behavior by being involved with their education, controlling for the parents' education level, household income, and level of mothers' involvement. Positive influences of father involvement included higher grades, higher participation in extracurricular activities, and higher enjoyment of school. Father involvement was also negatively related to suspension, expulsion, and grade retention. Father involvement further had a greater influence on children's grades than mother involvement (Nord et al., 1997; Nord, 1998b). Unfortunately the data in this study did not provide any information about mothers' or fathers' home-based involvement (Epstein's types 1 and 4), their participation in decision making, governance, and advocacy in school (Epstein's type 5), or their participation in school-community collaboration (Epstein's type 6). In addition, the use of only four items provided a limited estimate of parents' participation in Epstein's type 2 and 3 involvement at best.

Flouri and Buchanan's studies of father involvement in Great Britain. A second line of research investigating the effects of father involvement on children's educational outcomes is the work of Eirini Flouri and Ann Buchanan in Great Britain. Several of their studies were based on data of the National Child Development Study

(NCDS). The NCDS is a longitudinal study that started in 1958 with 17,000 children. Follow-up data were collected when the children were 7, 11, 16, 23, 33, and 42 years old. In these data, PI was conceptualized as mostly home-based involvement including aspects of Epstein's type 1 and 4 involvement. Most of the studies used only four items to measure PI. Because the NCDS is a longitudinal study, much of the research using this data is focused on the long-term effects of father involvement (Flouri & Buchanan, 2002, 2003a; Flouri, 2005).

Father involvement made a unique contribution to children's later academic achievement. Data from the NCDS suggested that in Great Britain, both mother involvement and father involvement at age 7 independently predicted educational achievement at age 20, measured as the level of examination passed (in Great Britain one can choose to end school at age 16 without taking the examinations, the U.S. equivalent of a high school drop out, or one can take one or more O-level examinations, and the highest level of secondary educational attainment are the A-level examinations). There was no difference between boys and girls in the way that father involvement and mother involvement impacted their achievement. The level of mother involvement did not influence the effect of father involvement. Father and mother involvement impacted the educational achievement of children growing up in two-parent homes and single parent homes equally. Emotional and behavioral problems and academic motivation did not mediate the relationship between early mother and father involvement and later academic achievement (Flouri & Buchanan, 2004).

Father involvement also independently impacted students' motivation and attitudes towards school. The results of a survey of 2,722 adolescents suggested that perceived father involvement contributed uniquely to students' academic motivation and positive attitudes towards school, controlling for the effects of perceived mother involvement. Similarly the effects of mother and father involvement were the same for sons and daughters, and the effects of father involvement did not depend on the level of mother involvement. The effects of father involvement did not differ for children in two-parent and single parent homes (Flouri et al., 2002).

Additionally, father involvement impacted adolescents' social-emotional functioning in school. Using the NCDS data, Flouri and Buchanan (2003a) showed that father involvement at age 7 protected against emotional and behavioral problems at age 16, controlling for mother involvement. The results of survey data of 1,147 adolescents suggested that low levels of father involvement were associated with increased bullying behavior for both sons and daughters, controlling for the effects of mother involvement. The protective effect of father involvement on bullying behavior was greater if the level of mother involvement was lower (Flouri & Buchanan, 2003b). Father involvement further had a protective effect against victimization of bullies for teen-aged boys (Flouri & Buchanan, 2000). Father involvement was also independently related to children's self-esteem (Flouri, 2004).

Limitations of the NCDS data are the absence of data on school-based involvement (Epstein's types 2, 3, and 5) and parents' participation in community-school

collaboration (Epstein's type 6). Because the participants in this study were born in the 1950s results of these studies may not easily generalize to children born more recently, because of considerable cultural changes that have taken place since the 1950s both in Europe and in the United States. Because data collection was begun in the 1950s, participants in the study are mostly White and ethnically British. Therefore, results may not generalize to people of other ethnic backgrounds living in Great Britain today. Despite these limitations, results of these studies offer valuable information about the unique roles that fathers have played in children's educational and mental health outcomes.

Studies of father involvement in education using the PSID data. McBride et al. (2005) used data from the Child Development Supplement of the Panel Study of Income Dynamics to investigate the relationship between father involvement, family, school, and community resources, and children's achievement in school. They used a definition of PI covering Epstein's type 1, 2, and 3, measured with fourteen items. Although not all of the involvement types described in Epstein's typology were represented in these items, a strength of this study was that the items represented parents' direct interactions with the child related to school (i.e. talking with the child about school), communications with the teacher and other school personnel, and school-based involvement activities. As such, these are a broader representation of PI than those used in the NHES, which covered only school-based involvement activities, and those used by Flouri and Buchanan, which covered only home-based involvement activities. Additionally, the study used multiple

informants. Fathers and mothers each reported on their own involvement activities, and the teachers and school administrators reported on the school resources (e.g. teacher-student ratio, use of computers, etc.). Teachers also reported on perceived barriers to PI for each participating child. Achievement data were collected directly from the child in the form of standardized achievement tests. Results of this study indicated that teacher reports of perceived barriers for PI were negatively related to children's achievement, and to levels of involvement for both mothers and fathers. This result is similar to findings in the PI literature, that teacher practices are a critical variable predicting PI independent of parents' socio-economic status, and that parents of low socio-economic status are often ignored by teachers (Epstein & Dauber, 1991). Father involvement impacted children's academic achievement independently of mother involvement. Especially when fathers engaged in communication with teachers and other school personnel, this offered a protective effect against the negative association between low socio-economic status and academic achievement. The data offered support for the notion that father involvement mediates the effect of family, school, community resources, and children's academic achievement (McBride et al., 2005).

Comparisons of mother involvement and father involvement. Several studies have investigated the ways in which mother involvement and father involvement impact children's academic achievement. Grolnick and Slowiaczek (1994) used a multidimensional conceptualization of PI, from the point of view of the child. They argue that for PI to have effect on the child's academic achievement and socio-emotional

functioning within the school, the child has to perceive the parents as being involved. They distinguish three domains of PI: (1) behavior, i.e., the child's perception of parents' participation in school related activities; (2) personal, i.e., the child's experience that the parent cares about school and interactions with the parents in relation to school; (3) cognitive/intellectual, i.e., the child's experience that the parents expose them to educational and cognitively stimulating experiences and materials. These three domains of PI roughly correspond to Epstein's type 1, 2, 3, and 4, although assistance with homework is not explicitly mentioned as part of one of the three domains described here. In Grolnick and Slowiaczek's (1994) theoretical model, PI influences children's academic achievement through children's attitudes and motivation related to school. They examined the effects of mother and father involvement separately. Results of this study were similar to results reported elsewhere, that mothers were more involved than fathers, and that the level of father involvement was positively related to the level of mother involvement (Nord et al., 1997). This seems to be a difference between the United States and Britain, where levels of father involvement were reportedly unrelated to levels of mother involvement (Flouri & Buchanan, 2002, 2003a, 2003b; Flouri, 2005; Flouri et al., 2002). Results of this study further suggest different pathways of influence between mother involvement and father involvement via children's motivation and attitudes on children's achievement. These pathways are graphically represented in figures 4 and 5.

Results suggested that father involvement mainly influenced children's achievement through the behavior and intellectual/cognitive dimensions of involvement,

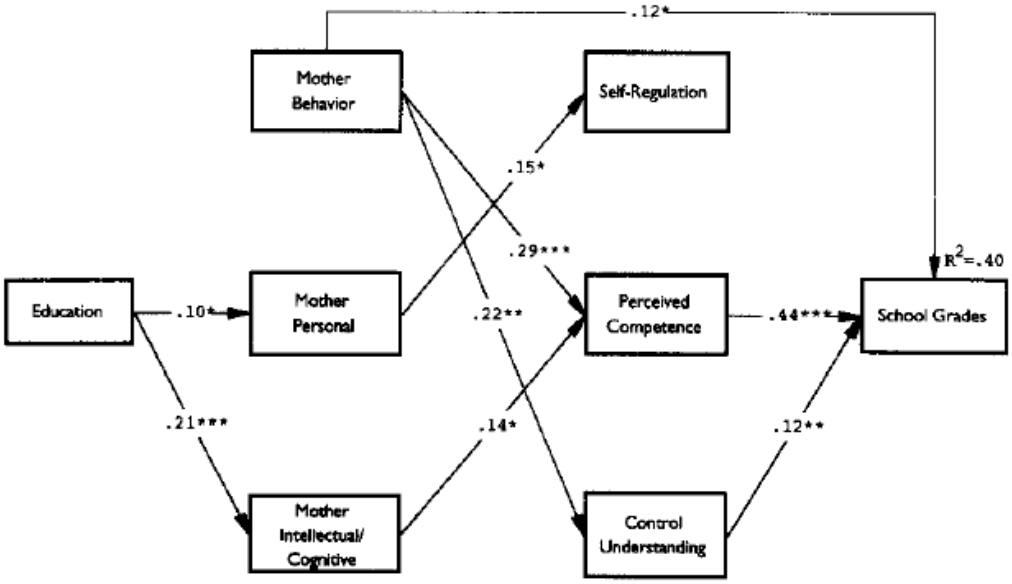


Figure 4: Path diagram of relations between maternal involvement factors, motivational variables and school grades. Taken from Grolnick and Slowiaczek, 1994, p. 247. Reprinted with permission via personal communication 07/29/2011.

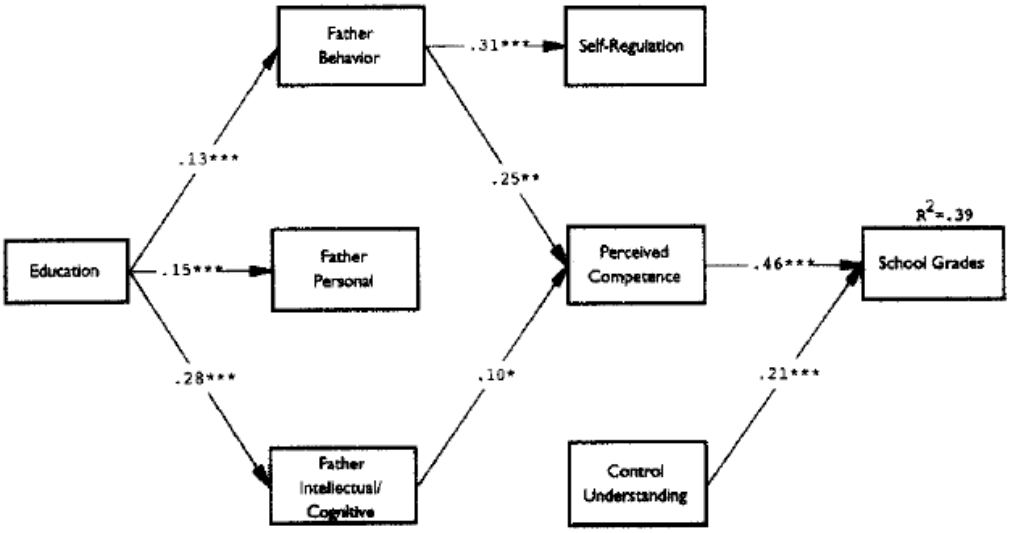


Figure 5: Path diagram of relations between paternal involvement factors, motivational variables and school grades. Taken from Grolnick and Slowiaczek, 1994, p. 248. Reprinted with permission via personal communication 07/20/2011.

via children's perceived competence. Mother involvement, on the other hand, influenced children's achievement through the same pathway, but also directly through the behavioral dimension of involvement, and via children's control understanding, which is defined as children's perceptions of their control over their academic successes and failures. A limitation of this study was that the sample consisted exclusively of European American, middle class families. Therefore, results of this study may not generalize to families with lower socio-economic backgrounds, and to families of different ethnic and cultural backgrounds.

Other studies comparing the effects of mother and father involvement suggested that fathers are generally less involved in their child's education than mothers. Fathers' communication with their child's kindergarten teachers, for example, occurred at a rate of 10% of communication between teachers and their caregivers (Rimm-Kaufmann & Zhang, 2005). Several studies indicated that when fathers do get involved, however, they have a positive impact on their children's academic performance. Fagan and Iglesias (1999) showed in a quasi-experimental study that when father involvement in Head Start programs was increased, children's math readiness scores subsequently increased as well, compared to children of fathers who were less involved. Father involvement was also found to be uniquely related to lower levels of externalizing behavior problems of adolescents, as reported by their teachers (Williams & Kelly, 2005). Father interest in children's school further had a strong protective effect against the negative influences of

economic hardship, compared to the effects of mother involvement (Hango, 2007). McBride et al. (2009) found that father involvement (conceptualized as school-based involvement only) was negatively related to children's achievement, whereas mother involvement was positively related to children's achievement. They hypothesized that fathers only become involved in school when their children are struggling. In single parent families, single fathers' involvement in school is specifically related to higher academic achievement of daughters (Lee, Kushner & Cho, 2007).

Non-residential father involvement in education. Although a lot less is known about non-residential father involvement in education, the results of several studies suggest that the involvement of non-residential fathers with their children is positively related to several areas of children's functioning in school. Non-residential father involvement in school is related to a

lower chance of being expelled or suspended, higher grades, more enjoyment of school, and higher participation in extracurricular activities, when controlling for residential mother involvement (Nord et al., 1997). High levels of non-residential father involvement are also related to lower risk of school failure for adolescents, although adolescents who have no contact with their non-residential father have better school outcomes than those with low levels of contact with their non-residential father (Menning, 2006). Contact between non-residential fathers and children of teen-age mothers is associated with fewer behavioral problems and higher academic achievement in school, controlling for the level of mother involvement (Howard et al., 2006). King and Sobolewski (2006) reported that

non-residential father involvement is associated with fewer internalizing and externalizing behavioral problems in children, although the effect of mother involvement was stronger on children's wellbeing. Flouri (2005 and 2007) on the other hand, reported that in Great Britain non-residential father involvement did not significantly influence children's social-emotional functioning.

Methodological issues. Compared to the large body of literature on PI, there are relatively few studies investigating the effects of father involvement in children's education. When evaluating these studies, there are several important methodological issues that need to be considered. First, in order to determine what is the unique effect of fathers' involvement, one must control for the effects of mothers' involvement. If mother involvement effects are not controlled, it is difficult to determine whether father involvement provides a unique effect on children's school outcomes, or merely an additive effect. Second, many studies of father involvement either use the mother as sole informant on fathers' involvement as well as on their children's functioning, or use the fathers' self-report as the sole source of information about their own involvement activities and their children's functioning. In order to avoid same-source bias, it is important to use multiple informants (Pleck & Masciadrelli, 2004). Third, as in many PI studies, father involvement studies tend to use a limited conceptualization of involvement in education. Often these conceptualizations include exclusively school-based activities, or exclusively home-based activities, measured with only a few items. A few studies use a more multidimensional conceptualization of PI, but none of these cover all of the types

of involvement of Epstein's typology. Because many types of involvement are left out of most studies, it is difficult to obtain a complete picture of the ways in which fathers are involved. These studies may miss important contributions fathers make to their children's education.

Variables related to father involvement. The variables outlined in Hoover-Dempsey and Sandler's model are a good starting point in investigating father involvement in education. However, there are additional variables that may play a role in predicting of *father* involvement in addition to the variables identified in the general PI literature, including beliefs about gender roles, educational aspirations for the child, family size, and composition.

Gender roles. Although Hoover-Dempsey and Sandler's model includes role construction as a motivational belief for involvement, one aspect of role construction that may be particularly salient for fathers is not included. This aspect relates to fathers' beliefs about gender roles and parenting responsibilities. Research suggests that differences in beliefs about gender roles affect father involvement in parenting duties (Benetti & Roopnarine, 2006; Cabrera & Garcia Coll, 2004; Roopnarine, 2004). Variations in beliefs about gender roles and parenting may be correlated with the extent to which fathers have an active role construction related to their child's education. If some fathers believe that it is primarily the mothers' role to be actively involved in their child's education, these fathers may then have more passive role construction beliefs about their own involvement in the child's education. On the other hand, fathers who

believe that both parents are equally responsible for their child's education may have more active role construction beliefs related to involvement in education. Several studies suggest that mothers and fathers make different contributions to children's educational outcomes, based on differing beliefs about gender roles and parenting (e.g. Hanson, 2007; Reese, Balzano, Gallimore & Goldenberg, 1999). Therefore, beliefs about gender roles and parenting could be a valuable addition to Hoover-Dempsey and Sandler's model when this model is applied to fathers. In future research studies that consider mothers' motivation for involvement in education, mothers' beliefs about gender roles and parenting could be a valuable addition to Hoover-Dempsey and Sandler's model as well.

Educational Aspirations. Another important variable that could affect father involvement behaviors in education is educational aspirations for their child (Cabrera & Garcia Coll, 2004; Chen et al., 2000; Hanson, 2007; Klein, 2008; Reese et al., 1999). In three recent meta-analyses of the literature on PI, educational aspiration was one of the variables that consistently predicted PI across different studies in different populations (Fan & Chen, 2001; Jeynes, 2005, 2007). Based on these findings, it possible that educational aspirations are in fact a *motivation* for parent involvement behaviors, which in turn benefit academic achievement. Because of the robustness of the predictive value of educational aspirations, this is one of the variables that should be added to Hoover-Dempsey and Sandler's model when investigating father involvement in education.

Family Size and Composition. Because family composition and size varies, the number of adults and the relationships these adults have to the children in the family may

affect the way in which fathers are involved with their children. Marital status of the father, and whether or not the biological father lives with the child, could affect the extent and kind of father involvement in education as well (Cabrera & Garcia Coll, 2004; Roopnarine, 2004).

Conclusions. Despite methodological limitations of many studies of father involvement in school, results consistently suggest that although fathers are not as involved in school as mothers, when they do become involved they contribute independently and positively to several areas of children's school functioning. The ways in which father involvement influences school outcomes for their children may be different from mothers, and the process by which this happens is not yet well understood. Because of the limited operationalization of father involvement in many studies, it is not clear whether fathers may engage in different types of involvement activities than mothers. Although the literature reports several demographic variables related to father involvement in school, little is known about what motivates fathers to become involved in their child's education. Studies of father involvement using Hoover-Dempsey and Sandler's (1995) model have not yet been done. As in general PI research, theory-driven research of father involvement in education is critical.

Statement of the Problem

Based on the literature reviewed above, it is clear that PI benefits children's academic achievement and school-related social-emotional adjustment. Moreover, PI can offer a powerful protective factor for students in low SES populations, who are at greater

risk for school failure and social-emotional adjustment difficulties. PI is a multidimensional construct that can take many different forms, based on the parents' preferences and the child's developmental level and needs. It is important to understand why parents choose to become involved in their child's education, because it opens avenues for intervention that can increase PI. In developing interventions to do so, it is important to take a strength-based, collaborative approach that respects the complementary expertise of parents and schools.

Although the benefits of PI are widely documented, most studies investigating PI have used samples that have included mostly mothers. Fathers typically represent less than 10% of the samples in most of these studies. Thus, the general PI literature does not offer specific knowledge about what motivates fathers to become involved in their child's education. It is important to obtain this information, because, as reviewed evidence suggests, fathers play an important role in children's academic success and social-emotional well-being in a way that is distinct from mothers. Research studies also suggest that father involvement in education provides benefits for children over-and-above the involvement of mothers. Because it is widely documented that fathers in the U.S. are generally less involved in education than mothers, it is important to identify what motivates fathers to be involved in their child's education, so that schools can successfully increase father involvement through intervention.

To date, there have not been any studies that have identified the variables that motivate father involvement in education or how fathers experience their relationship

with their child's school. This study aimed to address this void in the literature. Father involvement in education was assessed using a multidimensional measure that includes all five types of PI identified in Epstein's typology. Based on Hoover-Dempsey and Sandler's model, this study sought to investigate what motivates fathers to become involved in their child's education, and in which types of involvement they engage. In addition to measuring the variables of Hoover-Dempsey and Sandler's model, several important variables taken from the broader literature on father involvement in their children's upbringing were added to supplement the model with constructs that may be specific to fathers. The scope of this study was limited to fathers and father figures of elementary school-aged children, because PI tends to be more frequent for children in elementary school.

In summary, there are three types of variables that could explain fathers' involvement behaviors in their child's education. The first type is related to fathers' *beliefs*: motivational beliefs, beliefs about gender roles and parenting, and aspirations for their child's educational attainment. The second type is related to fathers' *perceptions* of circumstances related to involvement: perceived life context, and perceptions of invitations from others. The third type is related to the fathers' *demographics*: the father's residential status relative to the child, the adult-to-child ratio in the family, the father's marital status, the father's education level, and the age of the child. This study considered the variables that are related to fathers' beliefs and perceptions to explain their involvement behaviors in their child's education. The reason that these variables were

considered in particular is that perceptions and beliefs can be influenced by school practices. If the perceptions and beliefs that motivate fathers to be involved in their child's education can be identified, educators can more effectively target these perceptions and beliefs, and thereby increase father involvement.

Chapter 3. Method

Research Questions and Hypotheses

This study aimed to answer two research questions, which were addressed by testing three hypotheses. Figure 6 graphically depicts the variables included in the hypotheses.

Research question 1: *In what kinds of involvement behaviors do fathers engage?* This is a descriptive question, which was answered by indicating the types of parent involvement (PI) behaviors fathers in the sample most often endorsed: Home-Based Involvement, School-Based Involvement, or Home-School Communication.

Hypothesis 1:

There will be statistically significant differences in the levels of fathers' endorsement between the three types of PI behaviors (Home-Based Involvement, School-Based Involvement, and Home-School Communication).

Rationale: There are no data from previous studies that provide information about the levels of father involvement for each of these types of involvement behaviors; however, in studies using samples that consist primarily of mothers, Home-Based Involvement is most frequently endorsed.

Research question 2: *What is the role that beliefs about involvement in education and perceptions of circumstances related to involvement in education play in fathers' involvement behaviors?*

This research question was tested with three identical hypotheses that used the dependent variables Home-Based Involvement, School-Based Involvement, and Home-School Communication, respectively. An additional hypothesis considers differences in patterns of variables that explain the three types of PI.

Hypotheses 2a-2c:

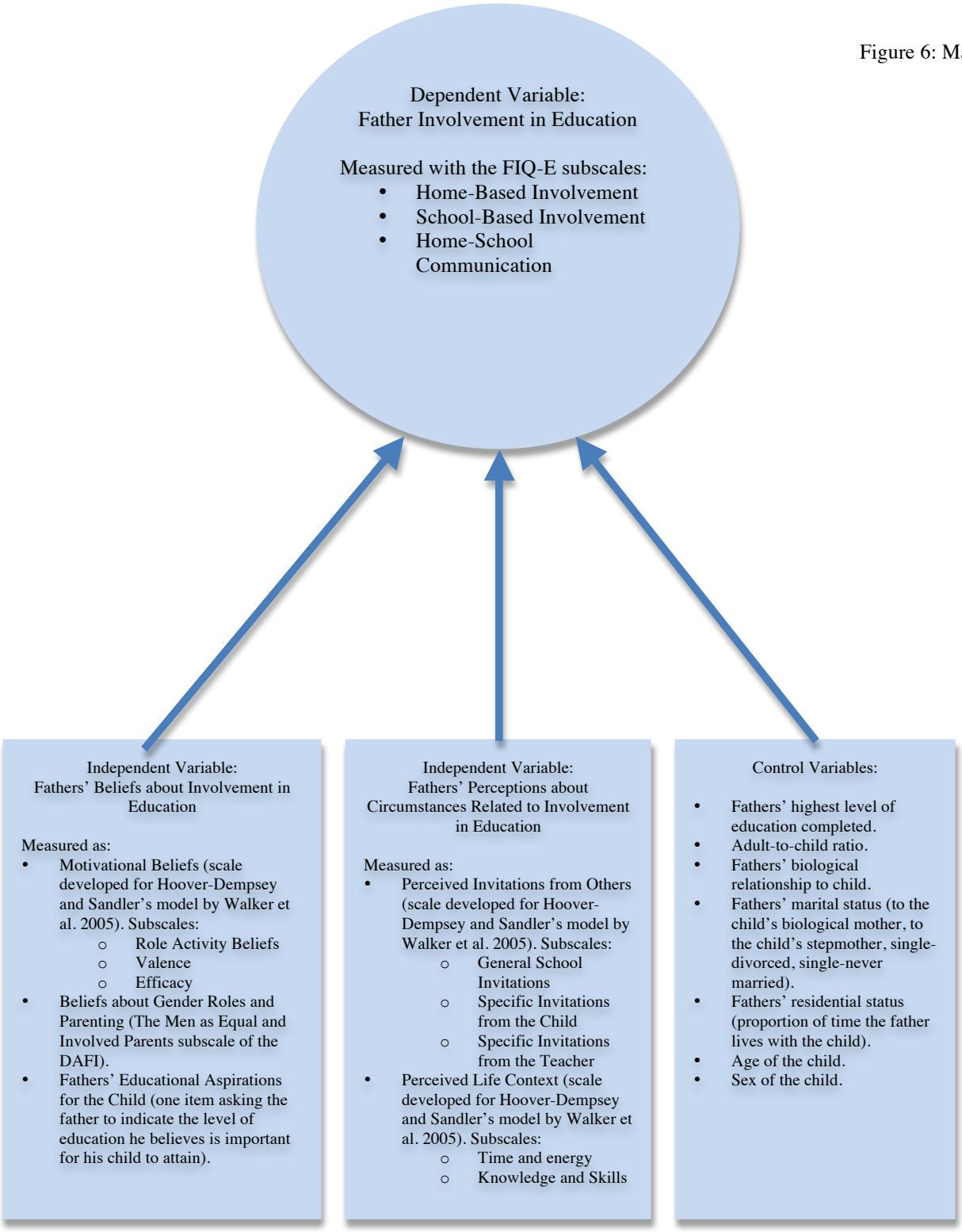
Beliefs about involvement in education (i.e. motivational beliefs, beliefs about gender roles and parenting, and educational aspirations) and perceptions about circumstances related to involvement in education (perceived invitations from others and perceived life context) will explain a significant proportion of the variance in Home-Based Involvement (2a), School-Based Involvement (2b), and Home-School Communication (2c), when controlling for relevant demographic variables (i.e. fathers' education, adult-to-child ratio, fathers' biological relationship to the child, marital status, residential status, sex of the child, and age of the child).

Rationale: Previous research supports the role of beliefs and perceptions in explaining PI behaviors (Anderson & Minke, 2007; Green et al., 2007; Maríñez-Lora & Quintana, 2009). Based on these findings, it was expected that the beliefs about involvement in education and the perceptions regarding the circumstances related to involvement in education would explain a significant proportion of the variance in involvement behaviors reported by the fathers in the sample of this study.

Hypothesis 3:

There will be differences in the patterns of variables that significantly explain variance in

Figure 6: Map of Variables



Home-Based Involvement, School-Based Involvement, and Home-School Communication.

Rationale: previous researchers (Anderson & Minke, 2007; Green et al., 2007; Maríñez-Lora & Quintana, 2009) have found differences in the patterns of variables that were related to Home-Based Involvement and School-Based Involvement in PI studies with samples that included mostly mothers. It was therefore expected that differences in patterns would be found in the types of variables related to these kinds of PI and Home-School Communication for fathers as well.

Measures

Family Involvement Questionnaire-Elementary (FIQ-E). Father involvement in education was measured through fathers' self reports using the FIQ-E (Manz, Fantuzzo & Power, 2004). The FIQ-E has been developed to measure all five types of PI described in Epstein's typology for parents of first through fifth grade students. The measure is based on the Family Involvement Questionnaire for Early Childhood (FIQ-EC) (Fantuzzo, Tighe & Childs, 2000). A large sample of predominantly African American parents was used to adapt the FIQ-EC for use with parents of elementary age students. Factor analyses of the items revealed three dimensions of PI: Home-Based Involvement, School-Based Involvement, and Home-School Communication. This replicated the factor structure of the FIQ-EC.

The Home-Based Involvement dimension consists of 15 items, with a reported internal consistency of $\alpha = .88$. The School-Based Involvement dimension consists of 13

items with a reported internal consistency of $\alpha = .84$. The Home-School Communication dimension has 13 items with a reported internal consistency of $\alpha = .91$. The response format for all items is a 4-point Likert scale (Rarely, Sometimes, Often, Always). Manz et al. (2004) reported unit weighted interfactor correlations ranging from .41 to .55, which indicated that the factors are distinct but related PI constructs. Confirmatory factor analysis was used to assess the validity of the FIQ-E. The goodness-of-fit indices confirmed the three-factor structure.

In this study, the scales on the FIQ-E obtained internal consistencies of Cronbach's $\alpha = .88$ for the Home-Based Involvement scale, Cronbach's $\alpha = .86$ for the School-Based Involvement scale, and Cronbach's $\alpha = .95$ for the Home-School Communication scale, respectively. Thus, the results of this study support the robustness of the FIQ-E as a reliable PI measure. The items of the FIQ-E are provided in Appendix C.

Variables of Hoover-Dempsey and Sandler's model were operationalized and described by Walker, Wilkins, Dallaire, Sandler, and Hoover-Dempsey (2005). Their scales are used to measure the variables of level 1 of Hoover-Dempsey and Sandler's model. Each of the scales is described below. Items can be viewed in Appendix C.

Motivational Beliefs. The Motivational Beliefs Scale (Walker et al, 2005) consists of three constructs: Role Activity Beliefs, Valence, and Parental Self-Efficacy for Helping the Child Succeed in School. The Role Activities Beliefs scale has 10 items with a reported reliability of $\alpha = .80$. The response format for the items is a 6-point Likert

scale (Disagree very strongly – Agree very strongly). Valence consists of 6 items with a 6-point Likert scale response format with a reported reliability of $\alpha = .85$. Response options on this scale vary by item, but range from a negative to a positive experience with several aspects of the father's own school. Items can be viewed in Appendix C. The Efficacy scale consists of seven items with a 6-point Likert scale response format (Disagree very strongly – Agree very strongly) with a reported reliability of $\alpha = .78$.

With the sample of this study the following reliability coefficients were obtained: The Cronbach's α for the Role Activity Beliefs scale was .83; the Cronbach's α for the Valence scale .87; and the Cronbach's α for the Efficacy scale was .81. Thus, the reliability of the Motivational Beliefs scale in this study closely resembles the reliability of this measure reported by the authors, affirming the robustness of this measure.

Perceptions of Invitations from Others. This scale consists of three subscales: General Invitations for Involvement from the School, Specific Invitations for Involvement from the Child, and Specific Invitations for Involvement from the Child's Teacher. The General Invitations for Involvement from the School scale consists of six items with a 6-point Likert scale response format (Disagree very strongly – Agree very strongly). The α coefficient for reliability for this scale was reported to be .88. The Specific Invitations for Involvement from the Child scale consists of 6 items with a 6-point Likert scale response format (from Never to Daily). Reliability for this scale is reported as $\alpha = .70$. The Specific Invitations for Involvement from the Child's Teacher scale consists of 6 items with a reported α coefficient for reliability of .81. The response

format for this scale is the same as for the Specific Invitations for Involvement from the Child scale (Walker et al., 2005).

In this study, the General Invitations from the School scale obtained a Cronbach's α coefficient .78. The Cronbach's α for the Invitations for Involvement from the Child scale with the present sample was .74. Finally, the Cronbach's α for the Specific Invitations for Involvement from the Child's Teacher scale was .83 with the sample of the present study.

Perceived Life Context. Life context is measured with two scales: Time and Energy, and Knowledge and Skills. The Time and Energy scale consists of six items with a reported reliability coefficient of α = .84. The Knowledge and Skills scale consists of nine items with a reported reliability of α = .83. The response format for both scales is a 6-point Likert scale (Disagree very strongly – Agree very strongly) (Walker et al, 2005).

The Cronbach's α for the Time and Energy scale with the sample of this study was .86, and the Cronbach's α for the Knowledge and Skills scale was .86, also. Thus, the reliabilities for these scales were similar to those originally reported by the authors.

Discourses About Fathers Inventory (DAFI). To measure the fathers' beliefs about gender roles and parenting, the Men as Equal and Involved Parents subscale of the DAFI (Brownson, 2001) was used. The DAFI was created to assess to which kinds of discourses about fathering men are most commonly exposed. For the present study, the items of this subscale were used to assess fathers' beliefs about their parenting role. Brownson (2001) found that the Men as Equal and Involved Parents subscale explained

most of the variance in fathers' actual parenting behaviors, including offering support to their children for school related activities. The items of this subscale are listed in Appendix C. The response format was changed to a six point Likert scale ranging from "strongly disagree" to "strongly agree" from the original 6-point Likert scale that ranged from "never" to "very often." Brownson (2001) reported a reliability coefficient of α = .91 for the Men as Equal and Involved Parents subscale. With the sample of this study, the Cronbach's α for this DAFI subscale was .89.

Educational Aspirations. This variable was assessed using one item in which the father indicated the level of educational attainment he hopes his child will achieve. The item was worded as follows: "I believe it is important that my child ..." Response options range from "completes high school" to "obtains a graduate degree." In addition, the response option: "I do not believe this is important" was included. This response was scored as 0.

Procedures

Approval by the Human Subjects Committee. This study was conducted according to the ethical standards set forth by the American Psychological Association. It was approved by the Departmental Review Committee of the Department of Educational Psychology, and by the Institutional Review Board (IRB) of the University of Texas at Austin prior to data collection. This study obtained the IRB Exempt status, due to minimal risk to participants. All data were collected anonymously. The letter indicating the IRB exempt status can be viewed in Appendix A. The Round Rock Independent

School District approved this study for data collection within the district. The approval letter from Round Rock ISD can be viewed in Appendix B.

Once the study was approved by Round Rock ISD, the principal investigator contacted the principals of elementary schools that were on a list provided by the school district. The principals of seven elementary schools gave consent for recruitment of participants on their campus.

Survey construction. Data were collected via an on-line survey created through the Qualtrics website (www.qualtrics.com). The items of the scales described above and items designed to obtain demographic data from participants were entered in the Qualtrics survey program through this site. Paper and pencil surveys were also available upon request, although none of the participating fathers preferred that option. The survey was available in English and Spanish. The English survey can be viewed in Appendix C and the Spanish survey can be viewed in Appendix D. The survey was translated into Spanish by two independent translators and edited by two independent native Spanish speaking school district officials. The Spanish version of the survey could be accessed via a drop-down menu at the top of each of the survey pages. Informed consent was obtained from each of the participants on the first page of the survey. In order to continue with the survey, fathers had to indicate their consent at the bottom of this page. The consent form can be viewed in Appendix C.

Recruitment of participants. Fathers (biological fathers and non-biological father figures) of elementary students (Pre-K/PPCD through fifth grade) were recruited in

seven elementary schools in Round Rock ISD. This study limited itself to fathers of elementary school-age children because generally father involvement is markedly higher in elementary school than in middle school and high school (e.g. Nord, Brimhall & West, 1997).

Prior to data collection, the principal investigator had contact via email with all the principals of the participating schools, and met in person with the principal or assistant principal of four of the seven participating schools. Participants for the survey were recruited through a message in each of the elementary schools' weekly newsletters (E-News), which was made available to all families either electronically or as a paper copy. The message was included for several weeks in the schools' E-News letter. At the end of November 2010 the announcement was repeated in the E-News letter of several schools. The announcement of the study included a link to the survey. The link to the survey was also made available on campus computers for families who did not have a computer at home. Fathers completed the survey online through a secure link to the survey. The survey was available online from October 2010 to January 2011. Table 1 shows the participation rates from school 1 through school 7.

Fathers were offered the option to participate in a lottery that would allow them to win four tickets to Sea World as an incentive to participate in the survey. In February of 2011 the lottery winner was randomly selected from participants who completed the survey in full. The winning lottery ID number was announced in the school newsletter of the winning participant. The participant then contacted the principal investigator to

discuss his preferred way to receive the tickets to Sea World.

Table 1.

Participation Rates by School

School	N	Percent of Respondents	Fall 2010 Enrollment per School
School 1	12	6	644
School 2	20	10	876
School 3	36	18	966
School 4	46	23	693
School 5	53	26	852
School 6	25	12	1,034
School 7	3	1	725
Other Schools	6	3	
Total	201	100	5,790

Power analysis. In previous studies (Green et al., 2007; Maríñez-Lora & Quintana, 2009) effect sizes were found ranging from $R^2 = .31$ to $R^2 = .49$ for the variables of Hoover-Dempsey and Sandler's model. Using the G*Power 3 program (Faul et al., 2007), it was determined that when using multiple regression with seventeen independent variables, assuming an effect size of $R^2 = .31$ (the lowest effect size reported), a total sample size of 70 participants would be needed to obtain a power of .90. Using the "rule of thumb" of ten participants per independent variable, a sample size of 170, the power for the statistical analyses for this study will be .99. Therefore, the aim was to recruit between 70 and 170 fathers to participate in the proposed study. The Alpha level for all statistical analyses was .05.

Participants

Two hundred twelve fathers gave consent to participate in the survey and 185 of these fathers (87%) completed the survey in full. Participants ranged in age from 30 to 65 (mean = 40.7, standard deviation = 5.7). The majority of participants indicated being of non-Hispanic, Latino, or Spanish ethnicity, and the majority of participants indicated they identified as being Caucasian or white. Table 2 shows the descriptive statistics of the sample.

Compared to the enrollment statistics reported by Round Rock ISD (Round Rock ISD Community Relations Office, 2010), Hispanic/Latino fathers are underrepresented (12% versus 30.1% in Round Rock ISD), African American fathers are underrepresented (4% versus 9% in Round Rock ISD), White fathers are overrepresented (80% versus 45.1% in Round Rock ISD), and Asian fathers are overrepresented in this sample (13% versus 11.2% in Round Rock ISD). Please refer to Appendix G for enrollment statistics of the fall of 2010 for each of the participating schools.

As shown in Table 2, the majority of participants indicated having achieved a college degree or higher. Ninety four percent of participants indicated being employed full time (N = 174), three percent indicated being employed part time (N = 6), and three percent indicated being unemployed (N = 5).

Participating fathers were asked to consider their oldest child in elementary school if they have more than one child in elementary school. Fifty four percent of fathers in the sample reported having a daughter (N = 100) and 46 percent of fathers reported

Table 2.

Descriptive Statistics of the Participants in the Sample

Ethnicity

	N	Percentage of Respondents
Non- Hispanic, Latino, or Spanish origin	164	89%
Mexican, Mexican American, Chicano	14	8%
Puerto Rican	3	2%
Other Hispanic, Latino, or Spanish origin	4	2%
Total:	185	100%

Race

	N	Percentage of Respondents
White or Caucasian	147	80%
Black or African American	8	4%
American Indian or Alaska Native	1	1%
Asian Indian	12	7%
Chinese	1	1%
Japanese	1	1%
Korean	1	1%
Vietnamese	3	2%
Other Asian	2	1%
Guamanian or Chamorro	1	1%
Other race	7	4%
Total	184	100%

Education Level

	N	Percentage of Respondents
Less than high school diploma or GED	1	1%
High school diploma or GED	9	5%
Some college	39	21%
College degree	72	39%
Advanced or graduate degree	64	35%
Total	185	100%

Marital Status

	N	Percentage of Respondents
Married to the child's mother	165	90%
Married to the child's stepmother	3	2%
Cohabiting	2	1%
Divorced, living alone	14	8%
Total	184	100%

having a son (N = 85) in elementary school. The participants' children were roughly equally distributed between grades k through 5th grade. Only one participant indicated having a child in pre-k or PPCD. The children's ages ranged from 5 to 11 years (mean = 7.71, standard deviation = 1.75). Table 3 shows the distribution of the participants' children among the elementary grades, as well as the fathers' relationships with the child.

Ninety percent of the sample (N = 166) reported living with the child all the time, four percent (N = 8) reported living with the child more than half the time, five percent (N = 10) reported living with the child less than half the time, and one individual reported only living with the child occasionally (e.g. during holidays).

Fathers reported that the number of adults who lived with the target child most of the time ranged from 1 to 4 (mean = 1.98, standard deviation = .49). The number of other children who lived with the target child most of the time ranged from 0 to 11 (mean = 1.16, standard deviation = 1.08). Fifty seven percent of fathers reported that one other child lived with the target child (N = 108); 19 percent reported no other children lived with the target child (N = 35); 18 percent reported two other children lived with the target child (N = 33); five percent of participants reported three other children lived with the target child (N = 9); one individual reported that five other children lived with the target child, and one individual reported that eleven other children lived with the target child.

Table 3.

Descriptive Statistics of the Participants' Relationship with the Child and the Child's Grade Level

Relationship with the Child

	N	Percentage of Respondents
Biological father	177	96%
Stepfather	2	1%
Adoptive father	5	3%
Grandfather	1	1%
Total	185	100%

Child's Grade Level

	N	Percentage of Respondents
Pre-K or PPCD	1	1%
Kindergarten	29	16%
1st Grade	29	16%
2nd Grade	33	18%
3rd Grade	38	21%
4th Grade	21	11%
5th Grade	34	18%
Total	185	100%

Chapter 4. Results

Preliminary Analyses

The data were checked for errors by reviewing descriptive statistics (means, standard deviations, minimum, maximum, and range) and scatter plots for each of the measures. Outliers were checked, and errors in data entry were corrected when possible.

The data met the assumption of linearity, and multicolinearity statistics were within acceptable limits. For Home-Based Involvement, tolerance ranged from .235 to .942, and Variance Inflation Factor (VIF) ranged from 1.062 to 4.264. For School-Based Involvement, tolerance ranged from .235 to .947, and VIF ranged from 1.056 to 4.264. For Home-School Communication, tolerance ranged from .234 to .893, and VIF ranged from 1.062 to 4.266. Residuals were normally distributed for all three dependent variables.

Research Questions and Testing of the Hypotheses

The first research questions this study aimed to answer was: *In what kinds of involvement behaviors do fathers engage?* In order to answer this question the following hypothesis was tested: *Hypothesis 1: There will be statistically significant differences in the levels of fathers' endorsement between the three types of involvement behaviors (Home-Based Involvement, School-Based Involvement, and Home-School Communication).*

To test this hypothesis, repeated measures ANOVA and post hoc Bonferroni *t*-tests were used to compare Home-Based Involvement, School-Based Involvement, and

Home-School Communication. The three PI scales have unequal numbers of items; thus, in order to make comparison between them possible, the scores on each of the PI scales were averaged by dividing the total score by the number of items on the scale. The Greenhouse-Geisser correction was used because the sphericity assumption was violated (the degrees of freedom reported below reflect the Greenhouse-Geisser correction). Table 4 shows the descriptive statistics of the three PI scales.

Table 4.

Descriptive Statistics for 3 Types of Parent Involvement (PI)

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Home Based Involvement	188	2.60	1.40	4.00	2.9486	.53969
School Based Involvement	188	3.00	1.00	4.00	1.9034	.56883
Home School Communication	191	3.00	1.00	4.00	2.0411	.77419
Valid N (listwise)	185					

Hypothesis 1 was supported by the data. The results of the repeated measures ANOVA and the Bonferroni *t*-tests suggest that there were significant differences in the frequency fathers reported engaging in each of three types of PI behaviors ($F(1.867; 343.552) = 349$, $p < .001$). Fathers engaged significantly more often in Home-Based Involvement behaviors ($p < .001$), less often in Home-School Communication ($p < .001$), and least often in School-Based Involvement ($p = .013$).

In order to further examine the types of PI behaviors fathers endorsed, the raw data were examined to determine the fathers' frequency of endorsement of the three types of PI items. Tables 5, 6, and 7 show the participants' responses to the items on the Home-

Based Involvement, School-Based Involvement, and Home-School Communication scales, respectively, from most to least frequent endorsement. Home-Based Involvement behaviors that fathers endorsed most often (on average often to almost always) included keeping a regular morning and bedtime schedule, maintaining clear rules at home, reviewing the child's schoolwork, reading with the child, helping with homework, and sharing stories with the child about their own school experiences.

Table 5.

Level of Endorsement of the Home-Based Involvement Scale by Item

Item	Level of Endorsement				N	Mean
	Rarely	Sometimes	Often	Almost Always		
Keep a regular morning and bedtime schedule	1	13	34	136	184	3.66
Maintain clear rules at home	0	17	54	114	185	3.52
Review the child's school work	2	23	57	103	185	3.41
Read with the child	10	33	53	89	185	3.19
Help with homework	6	37	77	65	185	3.09
Share stories with the child about when I was in school	9	47	58	71	185	3.03
Talk to family and friends about the child's school progress	11	40	75	59	185	2.98
Spend time working on math skills	8	48	74	55	185	2.95
Check that the child has a place to keep school materials	22	38	56	69	185	2.93
Do creative activities with the child	7	54	75	49	185	2.90
Talk to the child about how school helped me	15	48	73	49	185	2.84
Take the child to places in the community to learn special things	6	72	69	38	185	2.75
Limit TV and video watching	14	68	67	36	185	2.68
Bring home learning materials	33	62	48	42	185	2.54
Take the child to the library	75	57	32	20	184	1.98

Table 6.

Level of Endorsement of the School-Based Involvement Scale by Item

Item	Level of Endorsement				N	Mean
	Rarely	Sometimes	Often	Almost Always		
Take the child to school	23	54	33	75	185	2.86
Pick up the child from school	46	57	37	45	185	2.44
Parents at school support each other	54	47	60	22	183	2.27
Meet with families outside of school	53	61	47	23	184	2.22
Attend organized family-school association meetings	59	63	37	26	185	2.16
Arrange times for classmates to come play	69	63	36	17	185	2.01
Participate in fundraising activities at school	73	67	26	19	185	1.95
Talk to parents about school meetings and events	94	51	27	13	185	1.78
Volunteer in the classroom	96	57	18	14	185	1.73
Attend parent workshops or training at school	117	45	11	12	185	1.56
Go on class trips	131	32	11	11	185	1.47
Suggest activities or trips to the teacher	155	20	6	4	185	1.24
Talk to school personnel about job training	176	7	0	2	185	1.07

Table 7.

Level of Endorsement of the Home-School Communication Scale by Item

Item	Level of Endorsement				N	Mean
	Rarely	Sometimes	Often	Almost Always		
Attend conferences with teacher	19	37	19	110	185	3.19
Talk to the teacher about the child's accomplishments	33	83	42	27	185	2.34
Contact the teacher or principal to get information	47	73	33	32	185	2.27
Talk to the teacher about work the child should practice at home	43	78	36	28	185	2.26
Talk to the teacher about the child's difficulties at school	58	64	32	31	185	2.19
Talk to the teacher about the daily school routine	56	74	30	25	185	2.13
Call the teacher if concerned about something the child said	84	45	16	40	185	2.06
Talk to the teacher about the child's relationship with peers	74	71	22	18	185	1.91
Talk to the teacher about the classroom rules	82	65	16	22	185	1.88
Write notes with the teacher about the child or activities	94	57	19	15	185	1.76
Talk to the teacher about personal matters if relevant to school	105	41	23	16	185	1.73
Talk to the teacher or the principal about disciplinary matters	123	33	8	21	185	1.61
Talk to the teacher on the telephone	136	34	6	8	184	1.38

School-Based Involvement behaviors which fathers endorsed most often (on average sometimes to often) included taking the child to and from school, indicating that parents at the child's school support each other, meeting families outside of school, and attending organized family-school association meetings.

The Home-School Communication behavior fathers endorsed most often (on average often to almost always) was attending conferences with the teacher.

The second research question was: *What is the role that beliefs about involvement in education and perceptions of circumstances related to involvement in education play in fathers' involvement behaviors?* In order to investigate this question, the following hypotheses were tested: *Hypotheses 2a-2c: Beliefs about involvement in education (i.e. motivational beliefs, beliefs about gender roles and parenting, and educational aspirations) and perceptions about circumstances related to involvement in education (perceived invitations from others and perceived life context) will explain a significant proportion of the variance in Home-Based Involvement (2a), School-Based Involvement (2b), and Home-School Communication (2c), when controlling for relevant demographic variables (i.e. fathers' education, adult-to-child ratio, fathers' biological relationship to the child, marital status, residential status, sex of the child, and age of the child).* *Hypothesis 3: There will be differences in the patterns of variables that significantly explain variance in home-based involvement, school-based involvement, and home-school communication.*

Simultaneous multiple regression analyses were conducted to test hypotheses 2a-

2c and 3. The dependent variables for each of these hypotheses were Home-Based Involvement, School-Based Involvement, and Home-School Communication, respectively. The dependent variable was regressed on a) the variables measuring beliefs about involvement in education (motivational beliefs: i.e. role construction, valence, and sense of efficacy; beliefs about gender roles and parenting; and educational aspirations), b) the variables measuring perceptions of circumstances related to involvement in education (perceived invitations from others: i.e. invitations from the school, invitations from the teacher, and invitations from the child; and perceived life context: i.e. time and energy, and knowledge and skills), and c) on the control variables (fathers' education, adult-to-child ratio, fathers' biological relationship to the child, marital status, residential status, and age and sex of the child). The categorical variables *marital status* and *relationship to the child* were reduced to dichotomous variables because there were not enough respondents in each of the categories of these variables to meaningfully interpret the data. Instead of marital status (which involved several categories), responses were coded as "1" if the father indicated he lived with the child's mother, and as "0" if the father indicated he did not live with the child's mother. Similarly, instead of including all relationship categories of the father to the child, responses were coded as "1" if the father indicated he is the child's biological father, and "0" for other kinds of relationships. The regressions were conducted using the statistical software of SPSS according to the procedures outlined by Keith (2006). Results of each of the regressions are displayed in Tables 8, 9, and 10.

Table 8.

Home-Based Involvement Regression Coefficients

Variables	Standardized Coefficients β	*t*	p
(Constant)		-1.760	.080
Role Construction	.213**	2.856	.005
Valence	.095	1.476	.142
Efficacy	.118	1.645	.102
Gender Roles	.096	1.517	.131
Educational Aspirations	.055	0.906	.366
School Invitations	-.157*	-2.067	.040
Child Invitations	.185**	2.745	.007
Teacher Invitations	.110	1.581	.116
Time Energy	.121	1.580	.116
Knowledge Skills	.174	1.916	.057
Education Level	.052	0.807	.421
Adult to Child Ratio	-.031	-0.500	.618
Biological Father (yes = 1)	-.077	-1.329	.186
Live with Mother (yes = 1)	-.300*	-2.581	.011
Time with Child	.307**	2.639	.009
Age of the Child	-.121	-1.940	.054
Sex of the Child (girl = 1)	-.007	-0.112	.911
R^2	.492***		.000
F	9.101***		.000

Note: * p < .05, ** p < .01 level, *** p < .001.

Table 9.

School-Based Involvement Regression Coefficients

Variables	Standardized Coefficients β	*t*	p
(Constant)		-3.185	.002
Role Construction	.332***	4.424	.000
Valence	-.083	-1.275	.204
Efficacy	-.063	-0.878	.381
Gender Roles	.050	0.797	.426
Educational Aspirations	-.030	-0.501	.617
School Invitations	-.043	-0.563	.574
Child Invitations	.178**	2.616	.010
Teacher Invitations	.075	1.078	.283
Time Energy	.277***	3.614	.000
Knowledge Skills	.076	0.826	.410
Education Level	.103	1.600	.112
Adult to Child Ratio	-.029	-0.465	.643
Biological Father (yes = 1)	.117*	2.003	.047
Live with Mother (yes = 1)	.084	0.717	.474
Time with Child	.101	0.860	.391
Age of the Child	.040	0.637	.525
Sex of the Child (girl = 1)	-.091	-1.509	.133
R^2	.486		.000
F	8.828		.000

Note: * p < .05, ** p < .01 level, *** p < .001.

Table 10.

Home-School Communication Regression Coefficients

Variables	Standardized Coefficients β	*t*	p
(Constant)		-1.926	.056
Role Construction	.233**	2.747	.007
Valence	.001	.011	.991
Efficacy	-.056	-.702	.484
Gender Roles	.026	.366	.715
Educational Aspirations	-.064	-.934	.352
School Invitations	-.104	-1.208	.229
Child Invitations	.289***	3.762	.000
Teacher Invitations	.112	1.417	.159
Time Energy	.100	1.155	.250
Knowledge Skills	.154	1.489	.138
Education Level	.092	1.260	.209
Adult to Child Ratio	.028	.398	.691
Biological Father (yes = 1)	.035	.527	.599
Live with Mother (yes = 1)	-.092	-.696	.488
Time with Child	.125	.945	.346
Age of the Child	-.033	-.463	.644
Sex of the Child (girl = 1)	-.052	-.767	.444
R^2	.343		.000
F	4.935		.000

Note: * p < .05, ** p < .01 level, *** p < .001.

Results of the regression analysis supported hypothesis 2a-2c. The model explained 49 percent of the variance in Home-Based Involvement (R^2 = .492, p < .001); the model explained 49 percent of the variance in School-Based Involvement (R^2 = .486, p < .001); and the model explained 34 percent of the variance in Home-School Communication (R^2 = .343, p < .001).

The results of the regression also supported hypothesis 3: different patterns of variables significantly explained the three types of PI. As shown in Table 8, the variables that significantly explained fathers' reported Home-Based Involvement behaviors were role construction, general invitations from the school, specific invitations from the child, the amount of time the child lives with the father, and whether the father lives with the child's mother. The standardized regression coefficients are interpreted according to Cohen's rules of thumb as cited in Keith (2006). The largest effect on Home-Based Involvement was how much time the father reported living with the child; the more time the father reported living with the child, the more he reported engaging in Home-Based Involvement activities (ß = .307, p = .009). The next strongest effect was whether the father reported living with the child's mother. This was a negative effect: fathers who reported they were not living with the child's mother endorsed more frequent Home-Based Involvement activities (ß = -.300, p = .011). Role construction had a moderate effect on Home-Based Involvement (ß = .213, p = .005). Specific invitations from the child also had a moderate effect on father's Home-Based Involvement activities (ß = .185, p = .007). A moderate, negative effect was general invitations from the school (ß = -

.157, p = .04).

As shown in Table 9, variables that significantly explained School-Based Involvement were role construction, invitations from the child, perceived time and energy, and whether the father was the child's biological father. Role construction had a large effect on School-Based Involvement (ß = .332, p < .001). Perceived time and energy also had a large effect on fathers' reported School-Based Involvement behaviors (ß = .277, p < 0.001). Specific invitations from the child had a moderate effect on fathers' School-Based Involvement behaviors (ß = .178, p = 0.01). Finally, biological fathers reported moderately more School-Based Involvement than fathers and father figures with a different relationship to the child (ß = .117, p = .047).

As shown in Table 10, variables that significantly explained father's reported Home-School Communication behaviors included role construction and invitations from the child. Child invitations had a large effect on fathers' communication with school personnel (ß = .289, p < 0.001) and role construction had a moderate effect (ß = .233, p = 0.007).

In summary, results of testing the hypotheses indicated that fathers reported they engage in significantly more Home-Based Involvement, less in Home-School Communication, and least in School-Based Involvement. The variables that consistently explained father's engagement in each of these three types of PI were role construction and invitations from the child. Additional variables that significantly explained Home-Based Involvement were how much time the father lived with the child, whether the

father lived with the child's mother, and general invitations from the school. Additional variables that significantly explained School-Based Involvement were the father's perceptions of his available time and energy, and whether he is the child's biological father.

Chapter 5. Discussion

Parent involvement (PI) has long been known to have important benefits for students' academic achievement and social-emotional wellbeing in school. PI is a multidimensional construct that can take many different forms. Epstein (1987) provided the first and most influential comprehensive typology of PI, which Fantuzzo and colleagues (Fantuzzo et al., 2000; Manz et al., 2004) operationalized and distilled into three dimensions of PI: Home-Based Involvement, School-Based Involvement, and Home-School Communication. Hoover-Dempsey and Sandler (1995) developed the most comprehensive theoretical model of PI, that includes variables thought to motivate parents to engage in PI (level 1), a variety of forms of PI activities and behaviors (level 1.5), and the mechanisms by which PI benefits students' educational outcomes (levels 2–5). Level 1 of Hoover-Dempsey and Sandler's model describes three types of variables that are thought to motivate parents to engage in PI: motivational beliefs (which include role construction and sense of efficacy); perceptions of invitations for PI from others (which include general invitations for PI from the school, specific invitations for PI from the teacher, and specific invitations for PI from the child); and parents' perceptions of their life context variables (which include their perceived knowledge and skills, and their perceived time and energy to engage in PI). The most recent revision of Hoover-Dempsey and Sandler's model (Hoover-Dempsey et al., 2010) also includes family culture as a life context variable. Specific teacher invitations for PI stands out as one of the variables that is most consistently documented as a significant predictor of PI

practices in the existing literature.

Father involvement has been shown to have a positive influence on their children's academic success and social-emotional adjustment, over and above the influence of mother involvement. Despite the benefits of father involvement, most research studies that investigate PI have used samples that primarily consist almost entirely of mothers. The purpose of this study was twofold. First, to clarify the types of PI behaviors in which fathers engage, using the broadest measure of PI available. Second, the study aimed to determine why fathers choose to engage in any of the three dimensions of PI, and determine whether there are differences in the reasons fathers engage in these. This study was the first to focus exclusively on fathers. It joined two major theoretical models of PI: Hoover-Dempsey and Sandler's model with Epstein's typology of PI as operationalized by Fantuzzo and colleagues (Fantuzzo et al., 2000; Manz et al., 2004). Third, this study added consideration of the role of beliefs about gender roles and parenting, and educational aspirations as motivational beliefs for engaging in PI.

Fathers and PI

Overall, results of this study indicate that fathers most frequently endorsed Home-Based Involvement behaviors, followed by Home-School Communication; fathers engaged least frequently in School-Based Involvement. Fathers who see it as their role and responsibility to help their child with schoolwork and be involved in their education (role construction), and fathers whose children ask them to help and be involved

(invitations from the child) reported engaging most frequently in all three types of PI. There were also differences in the variables that explained fathers' endorsement of the three different PI behaviors. Home-Based Involvement was strongly influenced by the father's residential status relative to the child and the mother. If the father reported living with the child, he tended to report more Home-Based Involvement activities. If he reported living with the child's mother, he generally engaged in fewer Home-Based Involvement activities. Interestingly, when fathers reported experiencing a welcoming climate in school, they also tended to report engaging in fewer Home-Based Involvement activities. For School-Based Involvement, it mattered if fathers felt they had enough time and energy for these activities. Men who were the children's biological fathers, more often reported engaging in School-Based Involvement activities compared to non-biological father figures. Overall, the results of this study support the validity of level 1 of Hoover-Dempsey and Sandler's model for explaining the PI choices of fathers.

Hoover-Dempsey and Sandler (1995) posit that motivational beliefs (which consists of role construction and sense of efficacy) are one of the three main types of variables that explain why parents choose to engage in PI. For the fathers in this study, role construction consistently explained their engagement in all three dimensions of PI. This is in contrast with previous studies of Hoover-Dempsey and Sandler's model, which did not consistently identify role construction as a significant motivational variable for PI. This difference may be attributed to gender. The samples used in previous studies consisted primarily of mothers. There may have been less variability in mothers' beliefs

about engaging in PI as part of their role than there was in the sample of this study, which consisted exclusively of fathers. Therefore, it appears that role construction is a motivational variable that may be specific to fathers' PI choices. It would be important to see whether future research studies of fathers and PI replicate this finding.

In contrast to previous research studies that often identified sense of efficacy as an important motivational variable for PI, sense of efficacy was not significant in explaining the PI behaviors of the fathers in this sample. This difference is likely related to the lack of variability in education level of the fathers in this sample. The fathers who participated in this study were generally well educated: 74% of the fathers reported having achieved a college degree or higher. The participants in previous studies, on the other hand, often had more variability in SES and education level. Because of the education level of the participants in this study, it is likely that they generally felt confident about their efficacy in successfully engaging in PI and in making a positive difference in their child's education. It may be that sense of efficacy would have been significant in a more diverse sample of fathers.

The second type of variables described in Level 1 of Hoover-Dempsey and Sandler's model is perceptions of invitations from others. Specific invitations for involvement from the child consistently explained all three dimensions of PI behaviors of the fathers in this sample. This finding is consistent with the results of previous studies that often identified invitations from the child as an important motivational variable for PI. This result affirms that the fathers in this sample are sensitive to the needs of their

children and honor their requests for help and involvement in their education.

A major difference between the results of this study and previous research was that teacher invitations did not significantly explain any of the reported PI behaviors of the fathers in this sample. This is one of the most compelling findings of this study, because in decades of PI research teacher invitations and practices consistently stood out as one of the most important variables explaining PI. Upon inspection of the raw data, it appears that fathers in this sample generally did not experience high levels of teacher invitations, as endorsement of items of the teacher invitations scale was generally low. It may be that teacher invitations are generally more often directed at mothers and not specifically at fathers. Therefore, teacher invitations may play a more important role in mother's decisions to engage in PI than they do for fathers. It would be important for future research to further investigate the role of teacher invitations in fathers' PI decisions.

It was surprising that fathers' perceptions of a welcoming school environment (general invitations from the school) had a negative effect on Home-Based Involvement. The data do not provide a clear explanation for this effect. It may be that fathers who feel the school is doing a good job feel less urgency for engaging in activities that support their child's education at home. However, the current data do not offer opportunities to verify this explanation.

The third type of variables that motivate parents to engage in PI described in Level 1 of Hoover-Dempsey and Sandler's model are parents' perceptions of life context

variables. For the fathers in this sample, perceptions of available time and energy explained their engagement in School-Based Involvement activities. This is a straightforward finding that is consistent with previous studies. On the other hand, fathers' perceptions of their knowledge and skills did not significantly influence their PI decisions. This may, again, be related to their generally high education levels.

Integration of Models and Measurement

For the variables on Level 1.5 of Hoover-Dempsey and Sandler's model this study used the three dimensions of PI as operationalized by Fantuzzo and colleagues (Fantuzzo et al., 2000; Manz et al., 2004), rather than the measure of PI developed by Walker et al. (2005), who also operationalized the variables of Level 1 of the model. This choice was made because Fantuzzo's measure offered a broader, and more comprehensive operationalization of PI. Most notably, Fantuzzo's measure includes the Home-School Communication dimension of PI, which is absent in the measure Walker et al. (2005) created. The results of this study supported the reliability of Fantuzzo's measure; moreover, the reliability of this measure was similar to the reliability of the measure created by Walker and colleagues (2005). One could reasonably argue that Fantuzzo's measure has higher validity as a PI measure, because it captures more of the complexity and diversity of the PI construct. Interestingly, the most recent revision of Hoover-Dempsey and Sandler's model (Hoover-Dempsey et al., 2010) now includes communication between the family and the school as one of the PI forms of Level 1.5.

In addition to Hoover-Dempsey and Sandler's Level 1 variables, this study also

considered fathers' beliefs about gender roles and parenting, and fathers' educational aspirations for their child as beliefs that may motivate them to engage in PI. Neither of these variables significantly explained the PI behaviors of the fathers in this sample. This finding supports the validity of Hoover-Dempsey and Sandler's model for fathers, as this model does not include beliefs about gender roles and parenting as one of the motivational variables of PI. The most recent revision of the model (Hoover-Dempsey et al., 2010) does include educational aspirations as a 1.5 level PI form. However, it may be premature to completely dismiss the role of gender role beliefs and educational aspirations as motivational variables for engaging in PI based on the null findings of this study. Inspection of the raw data revealed that fathers generally endorsed high levels of agreement with egalitarian beliefs about gender roles and parenting. Therefore these data may have been subject to restriction of range, which would explain why beliefs about gender roles and parenting did not have a significant impact on the PI choices of the fathers in this sample. The data strongly suggest that restriction of range explains why educational aspirations did not play a significant role in the PI decisions of the fathers in this sample. In fact, 99 percent of fathers in this sample reported believing they thought it is important that their child obtains a college degree or higher. Therefore, beliefs about gender roles and parenting and considering educational aspirations as a motivation variable may still be valuable when assessing what motivates fathers of a more diverse population to engage in PI.

This study considered demographic control variables that early PI research

identified as important predictors of PI practices. A number of these variables (father's education level, the age and sex of the child, and the adult-to-child ratio in the home) were not significant predictors of PI in this sample. Fathers' biological relationship to the child and their residential status relative to the mother and the child, however, were significant predictors of fathers' PI practices. Although the fathers in the sample reported engaging most often in Home-Based Involvement (which is consistent with results of previous PI studies), fathers who lived with the child's mother reported engaging less frequently in Home-Based Involvement than fathers who reported living elsewhere. The current data does not provide a clear explanation why this is so; however, this finding is consistent with findings by Nord et al. (1997), who found that fathers reported higher participation in PI activities when they were married to the child's stepmother than when they were married to the child's mother. Previous research (Nord et al., 1997) also indicated that single fathers generally engage as much in PI activities as single mothers. The pattern in the data of this study may be a reflection of higher levels of PI of single and/or divorced fathers who have become the child's primary caregiver or share joint custody with the mother. Unfortunately the sample of non-residential fathers in this study was too small to meaningfully explore differences between residential and non-residential fathers in more depth.

Limitations

A major limitation of this study was that participation in the study was voluntary and that the sample was composed primarily of white, middle class, well-educated

fathers. Therefore, results of this study cannot be generalized to fathers in the larger U.S. population. As in all PI research, it is very difficult to obtain data from less involved or uninvolved fathers.

A second important limitation of this study was the use of single source data, exclusively based on fathers' self report. No second or third sources were used to verify the fathers' self-reports. Therefore, the data of the present study may be subject to same-source bias. For some respondents, social desirability may have influenced their responses. The tendency for social desirability bias was limited by collecting data anonymously. Another aspect of this limitation is the absence of data from the mothers. Because most of the participants in the study reported living with the child's mother, information about the mothers' involvement behaviors, motivational beliefs, perceptions, and demographic control variables would have shed more light on the complementary factors that might further explain father involvement. Because data from the mothers was absent, it was not possible to explain with this dataset why fathers who are living with the child's mother generally report less Home-Based Involvement than fathers who do not live with the child's mother.

A limitation of the present study, and a limitation of PI studies in general, was that our current conception and measurement of PI is largely dominated by middle class ideas about education and the role of parents in this process. The way we currently measure PI may not reflect culturally diverse beliefs, assumptions, and practices regarding the role of parents (and of mothers and fathers in particular) or assumptions

about the relationship between the parents' and schools' responsibilities. The measures used for PI in this study reflect this limitation.

Finally, the sample of this study consisted primarily of fathers who were part of intact families. Non-residential and non-biological fathers were a minority in this sample. Therefore, the results of the present study do not reveal much information about differences between residential and non-residential fathers, or differences between fathers in a variety of family compositions. One of the interesting results of the present study was that fathers who reported living with the child's mother tended to report less Home-Based Involvement activities. Unfortunately, the number of men in this sample who reported not living with their child's mother was too small to meaningfully examine this finding further.

Directions for Future Research

A meaningful next step in the investigation of the nature of father involvement in education would be to use this data collection procedure and perform a family level study that would recruit pairs of mothers and fathers, and would collect additional data from the child. Data from both mothers and fathers could reveal how PI responsibilities are divided in families, and how the activities of each parent influences the beliefs and perceptions that motivate involvement of the other parent, and in turn influences their involvement activities. By recruiting pairs of mothers and fathers, it may be possible to obtain data from less involved fathers, and fathers who may have less egalitarian views about gender roles and parenting. Additionally, data should be collected regarding the

experiences and perceptions of the child. Including the child's perspective reduces the same-source bias inherent in self-report studies.

Additionally, in order to obtain a more complete picture of the culturally diverse beliefs, assumptions, and practices regarding parenting, PI, and gender roles within families, it will be important to conduct multiculturally sensitive research. Qualitative research may be a useful way to generate hypotheses about different beliefs, assumptions, and practices of various cultural groups. Based on those qualitative studies, new measures for PI can be created and quantitatively verified to reflect this diversity of beliefs, assumptions, and practices. This can lead to an exploration of how cultural differences affect ideas about PI, gender roles, and assumptions about the respective roles of parents and schools.

It will also be important to examine the PI practices of mothers and fathers who are part of a more diverse range of family composition types. Examples of different types of families include but are not limited to: stepfamilies, adoptive families, single-parent families, custodial versus non-custodial arrangements, same-sex parent families, and multigenerational families.

Future research should also examine the unexpected finding that teacher invitations did not significantly influence fathers' PI practices. It may be that teachers tend to direct their invitations mainly at mothers, and that fathers are ignored. But it may also be that teachers are inviting fathers, but that these invitations do not influence fathers in the same way they influence mothers. In order to obtain more clarity about this

finding, an experimental study could be conducted with teacher invitations that are directly targeted at fathers. Such a study could investigate whether these targeted invitations increase the involvement behaviors of fathers.

Implications for Practice

This study has several important implications for educators. Teachers and school personnel who are interested in increasing father involvement in their school population may want to address fathers' beliefs about their roles and responsibilities. Communication from the school and from teachers could highlight the importance of PI from both parents, and elicit each parent's unique competencies and areas of expertise. Specific attention could be given to the role of fathers. It will also be key to ensure that divorced and non-residential fathers are included in the stream of information from the school to the family.

Another way that educators can increase father involvement in education is through invitations from the child. When teachers discuss ways in which children can invite their parents to be involved in assignments and projects, they could specifically address the importance of soliciting the involvement of both the mother and the father. Teachers can also talk with students about the ways in which each parent can help the child in a unique way. When children are specifically prompted to invite involvement from their father as well as from their mother, this will likely increase father involvement.

Interestingly, teacher invitations did not significantly influence fathers' choices for any of the types of PI. This may lead teachers to reflect on they way they invite

parents to be involved in their child's education, and whether there are invitations that are specifically directed towards fathers. It may be that teachers mainly direct invitations generically at "parents," which is often assumed to be synonymous with "mothers." In order for teacher invitations to meaningfully impact fathers' involvement decisions, they may have to be specifically directed at fathers.

Fathers reported engaging least in School-Based Involvement activities, and how much time and energy they felt they had was an important factor in their decisions. If schools want to increase father involvement in school-based activities, it is important that these activities are organized during times that fathers are available and have energy weekends and early mornings (e.g. breakfast with dad at school).

Concluding Statements

In summary, despite the limitations of having a largely homogeneous middle class, Caucasian sample, this study provided the first comprehensive view of fathers' PI activities. This study took into account a diversity of home-based and school-based involvement activities, as well as communication between the fathers and educators. This is also the first study that examines why fathers choose to become involved in their child's education, using Hoover-Dempsey and Sandler's theoretical model. Results from this study suggest that Hoover-Dempsey and Sandler's model is also applicable to fathers; however, there is evidence that fathers choose to become involved in their child's education for different reasons than mothers. The most important factors affecting involvement in all three kinds of PI are the fathers' beliefs about their roles and

responsibilities, and the invitations for involvement they receive from their children. And this knowledge may help educators to increase father involvement at their schools.

Appendix A. IRB Exemption Determination Letter

OFFICE OF RESEARCH SUPPORT

THE UNIVERSITY OF TEXAS AT AUSTIN

P.O. Box 7426, Austin, Texas 78713 (512) 471-8871 -FAX (512 471-8873)
North Office Building A, Suite 5.200 (Mail code A3200)

FWA # 00002030

Date: **08/04/10**

PI(s): **Cindy I Carlson** Department & Mail Code: **EDUC PSYCHOL DEPT** **D5800**
Iektje D Van Bolhuis ***** NO MAIL CODE ***** **W0000**

Title: **Fathers' Motivations for Involvement in Their Child's Education**

IRB EXEMPT DETERMINATION – IRB Protocol # **2009-11-0063**

Dear: **Cindy I Carlson**

Recognition of Exempt status based on 45CFR 46.101(b).
Qualifying Period: 08/04/2010 - 08/03/2013 *Expires 12 a.m. [midnight] of this date.*
A continuing review will need to be submitted in three years if the research is still pending.

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Responsibilities of the Principal Investigator(s):

Research that is determined to be Exempt from IRB review is not exempt from protection of the human subjects. The following criteria to protect human subjects must be met:

1. The Principal Investigator assures that all investigators and co-investigators are trained in the ethical principles, relevant Federal Regulations and institutional policies governing human subject research.

2. The Principal Investigator assures that human subjects will voluntarily consent to participate in the research when appropriate (e.g. surveys, interviews) and will provide subjects with pertinent information (e.g. risks and benefits, contact information for investigators and IRB Chair).

3. The Principal Investigator assures that human subjects will be selected equitably, so that the risks and benefits of the research are justly distributed.

4. The Principal Investigator assures that the IRB will be immediately informed of any information or unanticipated problems that would increase the risk to the human subjects and cause the category of review to be upgraded to Expedited or Full Review.

5. The Principal Investigator assures that the IRB will be immediately informed of any complaints from participants regarding their risks and benefits;

6. The Principal Investigator assures that confidentiality and privacy of the subjects and the research data will be maintained appropriately to ensure minimal risk to subjects; and

7. The Principal Investigator will report, by amendment, any changes in the research study.

These criteria are specified in the PI Assurance Statement that must be signed before determination of Exempt status will be granted. The Responsible Investigator's signature acknowledges that he/she understands and accepts these conditions. Investigators can refer to the Office of Research Support (ORS) website, www.utexas.edu/irb for specific information on training, voluntary informed consent, privacy, and how to notify the IRB of unanticipated problems.

1. **Closure:** Upon completion of the research project, a closure request must be submitted to the ORS.

2. **Unanticipated Problems:** Any unanticipated problems or complaints must be reported to the IRB/ORS immediately. For a description of unanticipated problems, please refer to the ORS webpage: http://www.utexas.edu/research/rsc/humansubjects/policies/section7.html#7.3

3. **Informed Consent:** The informed consent procedures laid out within your research proposal must be followed.

4. **Continuing Review:** If the study will continue beyond the three year approval period, a continuing review application must be filed.

5. **Amendments:** Amendments do not need to be filed with the ORS if the amendments do not change the risk level of the study (for example: increasing sample size, adding or removing co-PIs, adding or removing research sites, or minor modifications to the research protocol). Changes altering the level of risk to participants must be requested by submitting an amendment application and revised proposal to the ORS prior to those changes being implemented. For a description of the types of modifications that require an amendment application, refer to the ORS webpage: http://www.utexas.edu/research/rsc/humansubjects/policies/section6.html#635b , or call 471-8871.

Sincerely,

Jody L. Jensen, Ph.D.
Professor
Chair, Institutional Review Board

Appendix B. Research Approval Letter Round Rock ISD

1311 Round Rock Ave
Round Rock, Texas 78664
512-464-5906

June 16, 2010

Iektje van Bolhuis-Stephens
Graduate Student, The University of Texas at Austin
2509 Berkeley Ave
Austin, TX 78745

Dear Ms. *van Bolhuis-Stephens,*

Please be advised that your request to conduct research in the Round Rock Independent School District (RRIS approved starting 8/24/2010 through 5/31/2011. This letter of approval will serve to formally acknowledge permis for you to proceed with the proposed study, "Father Involvement in Education." Any unapproved changes to procedure or instruments submitted to the Division of Research and Evaluation on 3/23/2010 or any violations of R policy will result in nullification of this agreement.

The final decision for a school to participate resides with the campus principal. Participation is strictly voluntary, schools may withdraw participation at any time, and for any reason. Principals may call 464-5906 to ask for the rese application and any external documents needed to decide whether to participate in the study. **A signed copy of "Principal Agreement Form" must be turned in to the Division of Research and Evaluation before any research begin at a school.**

One member of the review committee offered the following advice on recruitment: "Fathers could be reached throu variety of avenues, for example the WATCH DOGS, (WATCH Dads of Great Students) program hosted at several of campuses, the after-school ASPIRE program hosted at our Title I campuses, the Families in Transition program, the Parent program, the Neighborhood Conference Committee (NCC) collaborative, the Conversations of Hope pa support group for Spanish-speaking parents and of course through our Parent Support Specialists at each campus."

The Division of Research and Evaluation continues to safeguard the valuable limited time that our students and staff to participate in research activities; therefore, we ask that you be sensitive to this issue.

We hope that you will be able to conduct your study successfully and we wish you the very best in your efforts.

Sincerely,

Andrea Arthur, Ph.D.
Associate Director,
Evaluation and Statistical Analysis
Round Rock Independent School District

Appendix C. Survey English

Dear Male Parent/Guardian,

You are being asked to participate in a study on fathers' experiences with their child's school. This research is part of my doctoral dissertation for the University of Texas. I am asking you to participate in this study because you are the father or father figure of a child in elementary school.

If you decide to participate, please check the box on the consent form on the below. Filling out the survey should take approximately 15 minutes. Your responses will be kept anonymous and you will not be asked for any identifying information at any point during the survey.

Some people may feel uncomfortable answering some of these questions. However, it is also a valuable opportunity to reflect on your experiences as a father and your experiences with your child's school. The ultimate goal of this study is to provide schools with information that can help them build better relationships with fathers. Past research suggests that positive relationships between you and your child's school can help your child be happier and more successful in school.

If you decide to participate in this study, you will have the option of entering a lottery to win 4 tickets to Sea World. This could be a fun activity for you to enjoy with your family. You will receive a lottery number that you can use to claim your prize if you win the tickets. This number will in no way be traced to your responses on the survey.

You are under no obligation to complete this survey. Your decision to participate in this study is voluntary, and you may choose not to participate. Your decision to participate or not participate will not affect your or your child's relationship with your child's school or school district in any way. Your present or future association with the University of Texas will not be affected if you choose not to participate.

If you have any questions or if you would like to be informed about the results of the study, please do not hesitate to contact me. My name is Iektje van Bolhuis and I can be contacted at (512) 471-4407. My supervisor on this project is Dr. Cindy Carlson, and she can be contacted at (512) 471-0276. If you would like to obtain information about the research study, have questions, concerns, complaints or wish to discuss problems about a research study with someone unaffiliated with the study, please contact the IRB Office at (512) 471-8871 or orsc@uts.cc.utexas.edu; or send a letter to IRB Administrator, P.O. Box 7426, Mail Code A 3200, Austin, TX 78713.

Thank you so much for considering to participate in this study!

Sincerely,

Iektje van Bolhuis, M.A. Doctoral Candidate in School Psychology University of Texas at Austin

- ❍ I consent to participate in this study
- ❍ I do not consent to participate in this study (this will terminate the survey)

If you have more than one child in elementary school please consider your oldest child in elementary school.

How old is your child?

In years:

OPTIONAL: What school does your child attend?

- ❍ Caraway Elementary
- ❍ Forest Creek Elementary
- ❍ Sommer Elementary

- ❍ Spicewood Elementary
- ❍ Teravista Elementary
- ❍ Union Hill Elementary
- ❍ Voigt Elementary
- ❍ Other, please specify _____

In which grade is your child this school year?
- ❍ Pre-K or PPCD
- ❍ Kindergarten
- ❍ 1st Grade
- ❍ 2nd Grade
- ❍ 3rd Grade
- ❍ 4th Grade
- ❍ 5th Grade

What is your child's sex?
- ❍ Boy
- ❍ Girl

What is your age?
In years:

Do you currently live with the child's mother?
- ❍ Yes
- ❍ No

What is your relationship to the child?
- ❍ Biological father
- ❍ Stepfather
- ❍ Adoptive father
- ❍ Grandfather
- ❍ Other father figure

How much time does your child live with you?
- ❍ All the time
- ❍ More than half of the time
- ❍ Less than half of the time
- ❍ Occasionally (e.g. during holidays)
- ❍ I do not live with my child

Are you of Hispanic, Latino, or Spanish origin?
- ❍ No, I'm not of Hispanic, Latino, or Spanish origin
- ❍ Yes, Mexican, Mexican American, Chicano
- ❍ Yes, Puerto Rican
- ❍ Yes, Cuban
- ❍ Yes, other Hispanic, Latino, or Spanish origin please specify _____

What is your race?
- ❍ White or Caucasian
- ❍ Black or African American
- ❍ American Indian or Alaska Native
- ❍ Asian Indian
- ❍ Chinese
- ❍ Filipino
- ❍ Japanese
- ❍ Korean
- ❍ Vietnamese
- ❍ Other Asian, please specify _____
- ❍ Native Hawaiian
- ❍ Guamanian or Chamorro
- ❍ Samoan
- ❍ Other Pacific Islander, please specify _____
- ❍ Other race _____

What is the highest level of education you have attained?
- ❍ Less than high school diploma or GED
- ❍ High school diploma or GED
- ❍ Some college
- ❍ College degree
- ❍ Advanced or graduate degree

What is your occupation?

What is your current employment status?
- ❍ Employed full time
- ❍ Employed part time
- ❍ Unemployed

What is your marital status?
- ❍ Married to the child's mother
- ❍ Married to the child's stepmother
- ❍ Cohabiting
- ❍ Divorced living alone
- ❍ Single, never married
- ❍ Widowed
- ❍ Living with a same sex partner

How many adults live with your child most of the time?

How many other children live with your child most of the time?

Which best describes what you believe: I believe it is important that my child...
- ❍ Completes high school
- ❍ Attains an associate's degree

- ❍ Completes college
- ❍ Attains an advanced or graduate degree
- ❍ None of the above

Please indicate HOW OFTEN during THE PAST 12 MONTHS you did the following things...

	Rarely	Sometimes	Often	Almost Always
Attend conferences with teacher	❍	❍	❍	❍
Contact the teacher or principal to get information	❍	❍	❍	❍
Talk to the teacher about the daily school routine	❍	❍	❍	❍
Talk to the teacher about the classroom rules	❍	❍	❍	❍
Call the teacher if concerned about something the child said	❍	❍	❍	❍
Talk to the teacher about the child's relationship with peers	❍	❍	❍	❍
Write notes with the teacher about the child or activities	❍	❍	❍	❍
Talk to the teacher about the child's accomplishments	❍	❍	❍	❍
Talk to the teacher about the child's difficulties at school	❍	❍	❍	❍
Talk to the teacher about work the child should practice at home	❍	❍	❍	❍
Talk to the teacher about personal matters if relevant to school	❍	❍	❍	❍
Talk to the teacher or the principal about disciplinary matters	❍	❍	❍	❍
Talk to the teacher on the telephone	❍	❍	❍	❍

Please indicate HOW OFTEN during THE PAST 12 MONTHS you did the following things...

	Rarely	Sometimes	Often	Almost Always
Limit TV and video watching	❍	❍	❍	❍
Review the child's school work	❍	❍	❍	❍
Take the child to the library	❍	❍	❍	❍
Keep a regular morning and bedtime schedule	❍	❍	❍	❍
Share stories with the child about when I was in school	❍	❍	❍	❍
Take the child to places in the community to learn special things	❍	❍	❍	❍
Check that the child has a place to keep school materials	❍	❍	❍	❍
Read with the child	❍	❍	❍	❍
Bring home learning materials	❍	❍	❍	❍
Maintain clear rules at home	❍	❍	❍	❍
Do creative activities with the child	❍	❍	❍	❍
Spend time working on math skills	❍	❍	❍	❍
Help with homework	❍	❍	❍	❍
Talk to family and friends about the child's school progress	❍	❍	❍	❍
Talk to the child about how school helped me	❍	❍	❍	❍

Please indicate HOW OFTEN during THE PAST 12 MONTHS you did the following things...

	Rarely	Sometimes	Often	Almost Always
Suggest activities or trips to the teacher	❍	❍	❍	❍
Attend parent workshops or training at school	❍	❍	❍	❍
Take the child to school	❍	❍	❍	❍
Volunteer in the classroom	❍	❍	❍	❍
Participate in fundraising activities at school	❍	❍	❍	❍
Go on class trips	❍	❍	❍	❍
Arrange times for classmates to come play	❍	❍	❍	❍
Talk to parents about school meetings and events	❍	❍	❍	❍
Pick up the child from school	❍	❍	❍	❍
Talk to school personnel about job training	❍	❍	❍	❍

Parents at school support each other	❍	❍	❍	❍
Attend organized family-school association meetings	❍	❍	❍	❍
Meet with families outside of school	❍	❍	❍	❍

Please indicate how much you AGREE or DISAGREE with the following statements. Please think about the current school year as you consider each statement.

	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
I believe it is my responsibility to volunteer at the school	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to communicate with my child's teacher regularly	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to help my child with homework	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to make sure the school has what it needs	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to support decisions made by the teacher	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to stay on top of things at school	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to explain tough assignments to my child	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to talk with other parents from my child's school	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to make the school better	❍	❍	❍	❍	❍	❍
I believe it is my responsibility to talk with my child about the school day	❍	❍	❍	❍	❍	❍

People have different feelings about school. Please mark the number on each line below that best describes your feelings about your school experiences when you were a student.

_____ My School:

_____ My Teachers:

_____ My Teachers

_____ My School Experience:

_____ I felt like:

_____ My overall experience:

Please indicate how much you AGREE or DISAGREE with the following statements. Please think about the current school year as you consider each statement.

	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
I know how to help my child do well in school	❍	❍	❍	❍	❍	❍
I don't know if I'm getting through to my child	❍	❍	❍	❍	❍	❍
I don't know how to help my child make good grades in school	❍	❍	❍	❍	❍	❍
I feel successful about my efforts to help my child learn	❍	❍	❍	❍	❍	❍
Other children have more influence on my child's grades than I do	❍	❍	❍	❍	❍	❍
I don't know how to help my child learn	❍	❍	❍	❍	❍	❍
I make a significant difference in my child's school performance	❍	❍	❍	❍	❍	❍

Please indicate how much you AGREE or DISAGREE with the following statements. Please think about the current school year as you consider each statement.

	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
Teachers at my child's school are interested and cooperative when they discuss my child	❍	❍	❍	❍	❍	❍
I feel welcome at my child's school	❍	❍	❍	❍	❍	❍
Parent activities are scheduled at my child's school so that I can attend	❍	❍	❍	❍	❍	❍
My child's school lets me know about meetings and special school events	❍	❍	❍	❍	❍	❍
My child's school's staff contacts me promptly about any problems involving my child	❍	❍	❍	❍	❍	❍
The teachers at my child's school keep me informed about my child's progress in school	❍	❍	❍	❍	❍	❍

Please indicate HOW OFTEN the following have happened DURING THE PAST 12 MONTHS:

	never	1 or 2 times	4 or 5 times	once a week	a few times a week	daily
My child asked me to help explain something about his or her homework	❍	❍	❍	❍	❍	❍
My child asked me to supervise his or her homework	❍	❍	❍	❍	❍	❍
My child talked with me about the school day	❍	❍	❍	❍	❍	❍
My child asked me to attend a special event at school	❍	❍	❍	❍	❍	❍
My child asked me to help out at the school	❍	❍	❍	❍	❍	❍
My child asked me to talk with his or her teacher	❍	❍	❍	❍	❍	❍

Please indicate HOW OFTEN the following have happened DURING THE PAST 12 MONTHS:

	Never	1 or 2 times	4 or 5 times	once a week	a few times a week	daily
My child's teacher asked me or expected me to help my child with homework	❍	❍	❍	❍	❍	❍
My child's teacher asked me or expected me to supervise my child's homework	❍	❍	❍	❍	❍	❍
My child's teacher asked me to talk with my child about the school day	❍	❍	❍	❍	❍	❍
My child's teacher asked me to attend a special event at school	❍	❍	❍	❍	❍	❍
My child's teacher asked me to help out at school	❍	❍	❍	❍	❍	❍
My child' teacher contacted me (for example, sent a note, phoned, emailed)	❍	❍	❍	❍	❍	❍

Please indicate how much you AGREE or DISAGREE with each of the following statements with regard to the current school year.

I have enough time and energy to communicate effectively with my child about the school day	❍	❍	❍	❍	❍	❍
I have enough time and energy to help out at my child's school	❍	❍	❍	❍	❍	❍
I have enough time and energy to communicate effectively with my child's teacher	❍	❍	❍	❍	❍	❍
I have enough time and energy to attend special events at school	❍	❍	❍	❍	❍	❍
I have enough time and energy to help my child with homework	❍	❍	❍	❍	❍	❍
I have enough time and energy to supervise my child's homework	❍	❍	❍	❍	❍	❍

Please indicate how much you AGREE or DISAGREE with each of the following statements with regard to the current school year.

	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
I know about volunteering opportunities at my child's school	❍	❍	❍	❍	❍	❍
I know about special events at my child's school	❍	❍	❍	❍	❍	❍
I know effective ways to contact my child's teacher	❍	❍	❍	❍	❍	❍
I know how to communicate effectively with my child about the school day	❍	❍	❍	❍	❍	❍
I know how to explain things to my child about his or her homework	❍	❍	❍	❍	❍	❍
I know enough about the subjects of my child's homework to help him or her	❍	❍	❍	❍	❍	❍
I know how to communicate effectively with my child's teacher	❍	❍	❍	❍	❍	❍
I know how to supervise my child's homework	❍	❍	❍	❍	❍	❍
I have the skills to help out at my child's school	❍	❍	❍	❍	❍	❍

Please indicate how much you AGREE or DISAGREE with each of the following statements.

	Disagree very strongly	Disagree	Disagree just a little	Agree just a little	Agree	Agree very strongly
Fathers and mothers are equally able to be nurturing	❍	❍	❍	❍	❍	❍
Fathers and mothers share the duty of discipline equally	❍	❍	❍	❍	❍	❍
Fathers and mothers are equal in their natural ability to be good parents	❍	❍	❍	❍	❍	❍
Fathers nurture their children	❍	❍	❍	❍	❍	❍
Fathers show children that men participate in housework and child care	❍	❍	❍	❍	❍	❍
Fathers spend as much time as possible with their children	❍	❍	❍	❍	❍	❍
Fathers equally share leadership responsibilities in the family with the mother	❍	❍	❍	❍	❍	❍
Fathers are there for their children when they need him	❍	❍	❍	❍	❍	❍
Participation in child care is as important for fathers as their job or career	❍	❍	❍	❍	❍	❍
Fathers and mothers share parenting duties equally	❍	❍	❍	❍	❍	❍
Fathers can provide for a child's needs as well as mothers can	❍	❍	❍	❍	❍	❍
Fathers teach values to their children	❍	❍	❍	❍	❍	❍
Being a father is a very rewarding experience	❍	❍	❍	❍	❍	❍
A child is just as much a fathers' responsibility as the mothers'	❍	❍	❍	❍	❍	❍
Fathers teach their children important life skills	❍	❍	❍	❍	❍	❍

Appendix D. Survey Spanish

Español

Consent letter and form

Estimado padre o tutor:

Por medio de esta carta le pedimos participar en un estudio sobre las experiencias del padre con la escuela de su hijo/a. Este estudio forma parte de mi tesis para la Universidad de Texas. Le pido participar en este estudio porque usted es el padre o tutor de un niño de una escuela primaria.

Si decide de participar le pido, que marque el circulo del formulario de consentimiento en la siguiente página. Pienso que le tomará aproximademente 15 minutos. Sus respuestas son anónimas y en ningún momento en este estudio se le pedirá un tipo de información que pueda revelar su identidad.

Alguna gente puede sentirse incómoda responder algunas preguntas. Sin embargo, es también una oportunidad valiosa para reflexi unar sobre sus experiencias como padre y sus experiencias con la escuela de su hijo/a. El objetivo final de este estudio es el de proporcionar a la escuela información que puede promover la colaboración entre la escuela y los padres. Estudios anteriores indican que una relación positiva entre usted y la escuela de su hijo/a puede ayudar a que su hijo/a sea más féliz y tenga mayor éxito en la escuela.

Si decide participar en este estudio, podrá entra en una rifa y puede ganar 4 boletos para Sea World. Visitar Sea World puede ser una actividad con la familia muy divertida. Recibirá un numero de la rifa con que puede reclamar su premio si gana los boletos. Este número no estará de ninguna manera ligado a las respuestas que ha dado en el estudio.

No está en obligado a llenar este cuestionario. Su decisión de participar en este estudio es voluntario, usted tiene la opción de negarse a la participación. Su actual o futura relación con la Universidad de Texas no será afectada de ninguna manera, si decide o no participar.

En caso que tenga cualquier pregunta o si quiere estar informado sobre los resultados del estudio, por favor dude contactarme. Mi nombre es Iektje van Bolhuis y me puede llamar al número de teléfono en (512) 471-4407. Mi supervisor de este proyecto se llama Dr. Cindy Carlson, y usted puede contactar la al numero (512) 471-0276. Si desea obtener información sobre este investigación o tiene cuestiones, dudas, reclamaciones, o desea discutir este investigación con alguien que sea afiliado, por favor contacta el oficina de IRB a (512) 471-8871 o orsc@uts.cc.utexas.edu; o manda carta a IRB Administrator, P.O. Box 7426, Mail Code A 3200, Austin, TX 78713.

Muchas gracias por su consideración de participar en este estudio!

Le saluda sinceramente,

Iektje van Bolhuis, M.A.
Doctoral Candidate in School Psychology (estudiante de doctoral en la academia de psicología)
Universidad de Texas Austin

- ○ Acepto a participar en este estudio
- ○ No acepto a participar en este estudio (en este caso el estudio será terminado)

Demographic info

Le pedimos que, por favor, sus respuestas sean basadas en sus experiencias con su hijo/a que actualmente esta en la escuala primaria. Si tiene más de un hijo/a en la escuala primaria favor de basar sus respuestas en sus experiencias con el hijo/a mayor.

¿Qué edad tiene su hijo/a?

años:

OPCIONAL: ¿A qué escuela asiste su niño?

- Caraway Elementary
- Forest Creek Elementary
- Sommer Elementary
- Spicewood Elementary
- Teravista Elementary
- Union Hill Elementary
- Voigt Elementary
- Other, please specify

¿En que grado esta su hijo/a en este año?

- Pre-K o PPCD
- Jardin de niños
- 1er grado
- 2do grado
- 3er grado
- 4to grado
- 5to grado

Género de su hijo/a?

- Hombre
- Mujer

Que edad tiene usted?

En los últimos años:

¿Vive actualmente con la madre del hijo/a?

- Sí
- No

¿Cual es su relación con este hijo/a?

- Padre biológico
- Padrastro
- Padre adoptivo
- Abuelo
- Otra figura del padre

¿Cuánto tiempo vive su hijo/a con usted?

- Todo el tiempo
- Más de la mitad del tiempo
- Menos de la mitad del tiempo

- De vez en cuando (por ejemplo, durante los días festivos)
- No vivo con mi niño

Usted es de origen hispano, latino o español?

- No, no soy hispano, ni latino o español
- Si, mexicano, mexico-Americano, Chicano
- Si, puertoriqéno
- Si, cubano
- Sí, otro origen hispano, latino o español por favor, especifique

Cual es su raza?

- Blanco o Caucásico
- Negro o afroamericano
- Americano Indiano or Alaska Nativo
- Asiático Indiano
- Chino
- Filipino
- Japónes
- Koreano
- Vietnamita
- Otro asiático, por favor especifique
- Hawaiano nativo
- Guamanian o Chamorro
- Samoa
- Otro Islas Pacificos, por favor especifique
- Otra raza

¿Cuál es el nivel educativo más alto que ha obtinielo?

- Menos de un diploma de bachillerato o GED
- Bachillerato o GED
- Algo de universidad
- Titulo universitario
- Estudios avanzados o de postgrado

Cual es su profesión?

Cual es actualmente su situación laboral?

- Empleado de tiempo completo
- Empleado de medio tiempo

- Desempleado

¿Cuál es su estado civil?

- Casado con la madre del niño
- Casado con la madrastra
- Viviendo en unión libre
- Divorciado, viviendo solo
- Sin pareja, nunca casado
- Viudo
- Viviendo con una pareja del mismo sexo

¿Cuántos adultos viven con su hijo/a la mayor parte del tiempo?

¿Cuántos otros niños viven con su hijo/a la mayor parte del tiempo?

Qué describe sus creencias:

Creo que es importante que mi hijo/a....

- Termine la escuala secundaria (high school)
- Consiga un titulo universitario de dos años
- Termina una carrera professional
- Consiga un postgrado o estudios avacados
- Ninguno de las anteriores

Family Involvement Questionnaire

Por favor indique con QUE FRECUENCIA durante los ULTIMOS 12 MESES ha hecho las cosas siguientes...

	Raras veces	A veces	A menudo	Casi siempre
Asistir a una conferencia con el profesor	○	○	○	○
Contactar al profesor o el director para obtener información	○	○	○	○
Hablar con el profesor sobre la rutina diaria de la escuela	○	○	○	○
Hablar con el profesor sobre las reglas de la clase	○	○	○	○
Llamar al profesor cuando estaba preocupado sobre algo que su hijo/a ha dicho	○	○	○	○
	Raras veces	A veces	A menudo	Casi siempre
Hablar con el profesor sobre la relación de su hijo/a con sus compañeros	○	○	○	○
Escripir cartas al profesor sobre su hijo/a o sobre actividades	○	○	○	○

Hablar con el profesor sobre los logros de su hijo/a				
Hablar con el profesor sobre las dificultados de su hijo/a en la escuela				
Hablar con el profesor sobre las tareas de su hijo/a				
	Raras veces	A veces	A menudo	Casi siempre
Hablar con el profesor sobre cosas personales si sean relevante para la escuela				
Hablar con el profesor sobre asuntos disciplinarias				
Hablar con el profesor por telèfono				
	Raras veces	A veces	A menudo	Casi siempre

Por favor indique con QUE FRECUENCIA durante los ULTIMOS 12 MESES ha hecho las cosas siguientes...

	Raras veces	A veces	A menudo	Casi siempre
Limitar ver la televisión y videos				
Revisar las tareas de su hijo/a				
Llevar su hijo/a a la biblioteca				
Mantener una rutina regular de levantarse y acostarse				
Contar historias a su hijo/a sobre los tiempos cuando usted era niño				
	Raras veces	A veces	A menudo	Casi siempre
Llevar su hijo/a a sitios en la comunidad para aprender cosas nuevas				
Controlar si su hijo/a tiene un lugar donde puede guardar sus cosas escolares				
Leer junto con su hijo/a				
Llevar a casa materiales de aprendizaje				
Mantener reglas claras en la casa				
	Raras veces	A veces	A menudo	Casi siempre
Hacer actividades con su hijo/a				
Dedicar tiempo trabajando en las habilidades matemáticas				
Ayudar con las tareas				
Hablar con la familia y amigos sobre el progreso de su hijo/a en la escuela				
Hablar con su hijo/a sobre como el asistir a la escuela me ha ayudado				
	Raras veces	A veces	A menudo	Casi siempre

Por favor indique con QUE FRECUENCIA durante los ULTIMOS 12 MESES ha hecho las cosas siguientes...

	Raras veces	A veces	A menudo	Casi siempre
Sugerir actvidades o viajes escolares al profesor	○	○	○	○
Asistir a talleres o formación para los padres en la escuela	○	○	○	○
Llevar su hijo/a a la escuela	○	○	○	○
Ser voluntario en la clase	○	○	○	○
Participar en actividades recaudativas en la escuela	○	○	○	○

	Raras veces	A veces	A menudo	Casi siempre
Ir a un viaje escolar	○	○	○	○
Organizar que su hijo/a pase tiempo fuera de la escuela con sus amigos de la clase	○	○	○	○
Hablar con otros padres sobre los eventos y reuniones de la escuela	○	○	○	○
Recoger su hijo/a de la escuela	○	○	○	○
Hablar con el personal de la escuela sobre el entrenamiento de trabajo	○	○	○	○

	Raras veces	A veces	A menudo	Casi siempre
Los padres de la escuela apoyan el uno al otro	○	○	○	○
Asistir a reuniones organizados por la associación familiar-escolar	○	○	○	○
Econtrarse con otras familias fuera de la escuela	○	○	○	○

	Raras veces	A veces	A menudo	Casi siempre

Motivational Beliefs

Por favor indique cuánto está de ACUERDO o DESACUERDO con las siguientes oraciones. Por favor base sus respuestas en el año escolar actual.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Creo que es mi responsabilidad ser voluntario en la escuela	○	○	○	○	○	○
Creo que es mi responsabilidad comunicar me con el profesor de mi hijo/a regularmente	○	○	○	○	○	○
Creo que es mi responsabilidad ayudar a mi hijo con las tareas	○	○	○	○	○	○
Creo que es mi responsabilidad asegurarme de que la escuela tiene lo que necesita	○	○	○	○	○	○
Creo que es mi responsabilidad respaldar las deciciones tomadas por el profesor	○	○	○	○	○	○
Creo que es mi responsabilidad de mantenerme informado de	○	○	○	○	○	○

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
las cosas de la escuela						
Creo que es mi responsabilidad explicar tareas dificiles a mi niño	○	○	○	○	○	○
Creo que es mi responsabilidad hablar con otros padres de la escuela de mi hijo/a	○	○	○	○	○	○
Creo que es mi responsabilidad mejorar la escuela	○	○	○	○	○	○
Creo que es mi responsabilidad hablar con mi hijo/a sobre su día en la escuela	○	○	○	○	○	○

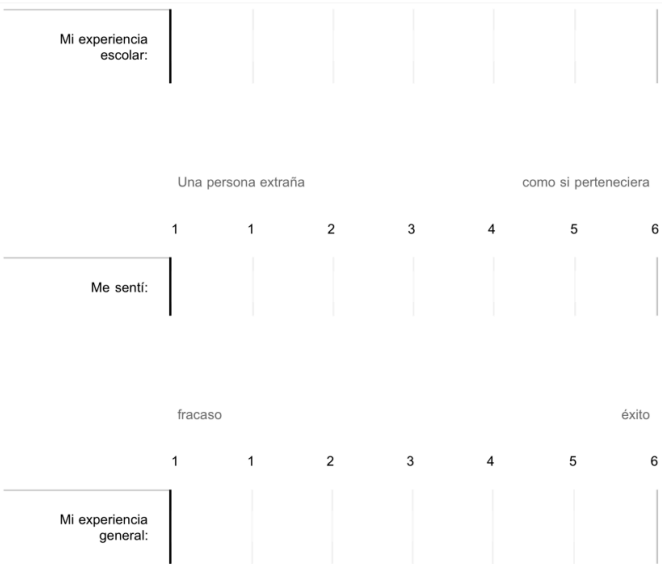
La gente tiene sentimientos desiguales sobre la escuela. Por favor marque el número que corresponde a sus sentimientos con respecto a sus propias experiencias escolares cuando era estudiante. Marque un número en cada línea abajo.

	no me gustó 1	1	2	3	4	5	me gustó 6
Mi escuela:							

	eran malos 1	1	2	3	4	5	eran buenos 6
Mis profesores:							

	me ignoraron 1	1	2	3	4	5	me cuidaron 6
Mis profesores:							

	mala 1	1	2	3	4	5	buena 6



Efficacy

Por favor indique cuánto esta de ACUERDO o DESACUERDO en las siguientes oraciones. Por favor base sus respuestas en el año escolar actual.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Sé como ayudar a mi hijo/a para que tenga éxito académico	○	○	○	○	○	○
No sé si estoy poniéndome en comunicación con mi hijo/a	○	○	○	○	○	○
No sé como ayudar a mi hijo/a para que obtenga buenas calificaciones en la escuela	○	○	○	○	○	○
Me siento exitoso sobre mis esfuerzos de ayudar a mi hijo/a a aprender	○	○	○	○	○	○
Otros niños tienen más influencia sobre las calificaciones de mi hijo/a que yo	○	○	○	○	○	○
No sé como ayudar a mi hijo/a para que aprenda	○	○	○	○	○	○
He hecho una diferencia significativa en el rendimiento escolar de mi hijo/a	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo

Invitations

Por favor indique cuánto esta de ACUERDO o DESACUERDO en las siguientes oraciones. Por favor base sus respuestas en el año escolar actual.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Los profesores de mi escuela estan interesados y colaborativos cuando hablan de mi hijo/a	○	○	○	○	○	○
Me siento bienvenido en la escuela de mi hijo/a	○	○	○	○	○	○
Actividades de los padres estan previstos en la escuela de mi hijo/a a horas en que yo puedo asistir	○	○	○	○	○	○
La escuela de mi hijo/a me informa sobre los reuniones y eventos especiales de la escuela	○	○	○	○	○	○
El personal de la escuela de mi hijo/a se pone en contacto conmigo directamente cuando algún problema surge relacionado con mi hijo/a	○	○	○	○	○	○
Los profesores de la escuela de mi hijo/a me mantienen informado sobre el progreso de mi hijo/a en la escuela.	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo

Por favor indique CUANTAS VECES lo siguiente ha pasado DURANTE LOS ULTIMOS 12 MESES:

	nunca	1 o 2 veces	4 o 5 veces	una vez a la semana	pocas veces a la semana	diario
Mi hijo/a me pidió explicar algo sobre sus tareas	○	○	○	○	○	○
Mi hijo/a me pidió que supervisar sus tareas	○	○	○	○	○	○
Mi hijo/a me contó sobre su dia en la escuela	○	○	○	○	○	○
Mi hijo/a me pidió asistir a un evento especial en la escuela	○	○	○	○	○	○
Mi hijo/a me pidió que ayudara en la escuela	○	○	○	○	○	○
Mi hijo/a me pidió que hablara con el profesor	○	○	○	○	○	○
	nunca	1 o 2 veces	4 o 5 veces	una vez a la semana	pocas veces a la semana	diario

Por favor indique CUANTAS VECES el siguiente ha pasado DURANTE LOS ULTIMOS 12 MESES:

	nunca	1 o 2 veces	4 o 5 veces	una vez a la semana	pocas veces a la semana	diario
El profesor de mi hijo/a me pidió o esperaba que ayudara con las tareas de mi hijo/a	○	○	○	○	○	○

El profesor de mi hijo/a me pidió o esperaba que supervisara las tareas de mi hijo/a	○	○	○	○	○	○
El profesor de mi hijo/a me pidió que hablara con mi hijo/a sobre su día en la escuela	○	○	○	○	○	○
El profesor de mi hijo/a me pidió que asistiera a un evento especial en la escuela	○	○	○	○	○	○
El profesor me pidió que ayudara en la escuela	○	○	○	○	○	○
El profesor de mi niño me contactó (por ejemplo: me mandó una carta, me llamó, me mandó un email)	○	○	○	○	○	○
	nunca	1 o 2 veces	4 o 5 veces	una vez a la semana	pocas veces a la semana	diario

Resources

Por favor indique cuanto esta de ACUERDO o DESACUERDO con las siguientes oraciones. Por favor base sus respuestas en el año escolar actual.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Tengo suficiente energía y tiempo para comunicar me efectivamente con mi hijo sobre su día en la escuela	○	○	○	○	○	○
Tengo suficiente energía y tiempo para ayudar en la escuela de mi hijo/a	○	○	○	○	○	○
Tengo suficiente energía y tiempo para comunicar me efectivamente con el profesor de mi hijo/a	○	○	○	○	○	○
Tengo suficiente energía y tiempo para asistir a eventos especiales en la escuela	○	○	○	○	○	○
Tengo suficiente energía y tiempo para ayudar a mi hijo/a con sus tareas	○	○	○	○	○	○
Tengo suficiente energía y tiempo para supervisar las tareas de mi hijo/a	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo

Por favor indique cuánto está de ACUERDO o DESACUERDO con las siguientes oraciones. Por favor base sus respuestas en el año escolar actual.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Estoy informado sobre las posibilidades de ser voluntario en la escuela de mi hijo/a	○	○	○	○	○	○
Estoy informado sobre los eventos especiales en la escuela de mi hijo/a	○	○	○	○	○	○
Conozco maneras efectivas de contactar al	○	○	○	○	○	○

profesor de mi hijo/a						
Sé como comunicar efectivamente con mi hijo/a sobre su día en la escuela	○	○	○	○	○	○
Sé como explicar cosas a mi hijo/a sobre sus tareas	○	○	○	○	○	○
Sé suficiente sobre los temas de las tareas de mi hijo/a para ayudarle	○	○	○	○	○	○
Sé como comunicar efectivamente con el profesor de mi hijo/a	○	○	○	○	○	○
Sé como supervisar las tareas de mi hijo/a	○	○	○	○	○	○
Tengo las habilidades para ayudar en la escuela de mi hijo/a	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo

DAFI

Por favor indique cuanto esta de ACUERDO o DESACUERDO con las siguientes oraciones.

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Los padres y las madres son igualmente capaces de cuidar a sus hijos	○	○	○	○	○	○
Los padres y las madres comparten igualmente la resposibilidad de disciplinar	○	○	○	○	○	○
Los padres y las madres tienen la misma capacidad natural para ser buenos padres	○	○	○	○	○	○
Los padres cuidan sus hijos	○	○	○	○	○	○
Los padres muestran que los hombres participan en las tareas de la casa y el cuido de sus hijos	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Los padres dedican todo el tiempo posible con sus hijos	○	○	○	○	○	○
Los padres comparten las mismas responsibilidades de liderazgo en la familia que la madre	○	○	○	○	○	○
Los padres están dispuestos a ayudar a sus hijos cuando lo necesitan	○	○	○	○	○	○
El participar en el cuidado del niño, es tan importante para los padres como su trabajo o carrera	○	○	○	○	○	○
Los padres y las madres comparten igualmente la responsabilidad de la crianza	○	○	○	○	○	○
	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
Los padres pueden						

	Profundamente en desacuerdo	Desacuerdo	Un poco en desacuerdo	Un poco de acuerdo	De acuerdo	Profundamente de acuerdo
satisfacer las necesidades del niño tan bien como la madre	O	O	O	O	O	O
Los padres enseñan valores a sus hijos	O	O	O	O	O	O
Ser padre es una experiencia gratificante	O	O	O	O	O	O
Un niño es tanto la responsibilidad del padre como la responsibilidad de la madre	O	O	O	O	O	O
Padres enseñan a sus hijos las habilidades importantes de la vida	O	O	O	O	O	O

Appendix E. Recruitment Statement English

Hey Dads! This is for you!

Research shows that if dads and schools work well together, kids succeed!

Your school is working together with the University of Texas to find out how to improve the way they work together with dads.

We need your help!

Please fill out our online survey:

https://utaustined.qualtrics.com/SE/?SID=SV_9AmRv5GEc61jvLK

You can also find the survey on the district webpage and the school webpage, and you can take the survey at the library. Thank you for considering to participate in this survey!

YOUR OPINIONS ARE VERY IMPORTANT TO US!

Your answers will be completely confidential. Your answers will be used for a dissertation research study from a graduate student at UT.

For more information, or to request a paper copy of the survey, please contact [name of parent support person on campus] (512) xxx-xxxx or Iektje van Bolhuis-Stephens: iektje@mail.utexas.edu.

Appendix F. Recruitment Statement Spanish

¡Oye Papás: Este es para ustedes!

Investigaciones han mostrado que si los papas y la escuela trabajan juntos, los jóvenes triunfan!

Su escuela esta trabajando con la Universidad de Texas para ver como pueden mejorar la manera en que trabajan con los papas.

¡Necesitamos su ayuda!

Por favor, llena nuestro apeo:
https://utaustined.qualtrics.com/SE/?SID=SV_9AmRv5GEc61jvLK
También puede encontrar el apeo en la página de web de la escuela en el Internet o si gustaría podría pasar a la biblioteca de la escuela para llenar el apeo. Gracias por considerar participar en este apeo.

¡Su opinión es muy importante para nosotros!

Si prefería una copia en papel, por favor comuníquese [name of parent support person on campus] (512) xxx-xxxx o Iektje van Bolhuis-Stephens: iektje@mail.utexas.edu.

Appendix G. Population Statistics of Participating Schools

School 1

	Percentage of Students
African American	4.7%
Asian	21.4%
Hispanic	11.3%
Native American	0.7%
White	62%
Bilingual/ESL	7.1%
Gifted & Talented	10.1%
Special Education	5.6%
Economically Disadvantaged	15.1%
At-risk Students	18.9%
Limited English Proficient	7.3%

School 2

	Percentage of Students
African American	6.5%
Asian	9.9%
Hispanic	16.7%
Native American	0.6%
White	66.3%
Bilingual/ESL	4.3%
Gifted & Talented	7.4%
Special Education	8%
Economically Disadvantaged	8.5%
At-risk Students	19.3%
Limited English Proficient	4.3%

School 3

	Percentage of Students
African American	3.6%
Asian	27.6%
Hispanic	12.4%
Native American	0%
White	56.4%
Bilingual/ESL	7%
Gifted & Talented	6%
Special Education	6.7%
Economically Disadvantaged	5.9%
At-risk Students	16.3%
Limited English Proficient	7.9%

	School 4
	Percentage of Students
African American	0.6%
Asian	31.9%
Hispanic	7.2%
Native American	0.3%
White	59.5%
Bilingual/ESL	3.8%
Gifted & Talented	12.8%
Special Education	4.6%
Economically Disadvantaged	5.3%
At-risk Students	15.7%
Limited English Proficient	3.8%

	School 5
	Percentage of Students
African American	12.1%
Asian	8.6%
Hispanic	22.3%
Native American	1.2%
White	55.8%
Bilingual/ESL	7.2%
Gifted & Talented	2.3%
Special Education	6.7%
Economically Disadvantaged	21%
At-risk Students	23.2%
Limited English Proficient	7.2%

	School 6
	Percentage of Students
African American	15.8%
Asian	2.3%
Hispanic	51.2%
Native American	0.1%
White	30.6%
Bilingual/ESL	19.2%
Gifted & Talented	2.8%
Special Education	9.2%
Economically Disadvantaged	56.4%
At-risk Students	39.2%
Limited English Proficient	19.6%

	School 7
	Percentage of Students
African American	12.6%
Asian	0.4%
Hispanic	67.2%
Native American	0.4%
White	19.4%
Bilingual/ESL	37.7%
Gifted & Talented	1.5%
Special Education	8.1%
Economically Disadvantaged	75.7%
At-risk Students	62.3%
Limited English Proficient	38.1%

Source: Round Rock ISD Webpage: www.roundrockisd.org

References

Adams, K. S. & Christenson, S. L. (2000). Trust and the family-school relationship examination of parent-teacher differences in elementary and secondary grades. *Journal of School Psychology*, 38(5), 477-497.

Amato, P. R. & Sobolewski, J. M. (2004). The effects of divorce on fathers and children. Nonresidential fathers and stepfathers. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 341-367). John Wiley & Sons, Hoboken, NJ.

Anderson, K. J. & Minke, K. M. (2007). Parent involvement in education: toward an understanding of parents' decision making. *The Journal of Educational Research*, 100(5), 311-323.

Baker, A. J. L. & Soden, L. M. (1998). The challenges of parent involvement research. *ERIC/CUE Digest Number 134*. (ED419030).

Bandura, A. (1982) Self-Efficacy Mechanism in Human Agency. *American Psychologist,* 37(2), 122-147.

Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, 84(2), 191-215.

Bempechat, J. (1990). *The role of parent involvement in children's academic achievement: a review of the literature*. Issues No. 14. ERIC Clearinghouse on Urban Education, Institute for Urban and Minority Education, New York, NY. (ED322284).

Bempechat, J. (1992). The role of parent involvement in children's academic achievement. *The School Community Journal*, 2(2), 31-41.

Benetti, S. P. C. & Roopnarine, J. L. (2006). Paternal involvement in school-aged children in Brazilian families: associations with childhood competence. *Sex Roles*, 55, 669-678.

Brown, M. C. (1994). *Parent involvement as a variable in reading readiness: a review of the related literature*. Loyola College, Maryland. (ERIC Document Reproduction Service ED384850).

Brownson, C. G. (2001). *Working Fathers' Participation in Parenting: An Exploration of Dominant Discourses and Paternal Participation*. Doctoral Dissertation,

University of Texas at Austin.

Cabrera, N. J. & Garica Coll, C. (2004). Latino fathers. Uncharted territory in need of much exploration. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 98-120). John Wiley & Sons, Hoboken, NJ.

Carlson, C. (1993). The family-school link: methodological issues in studies of family processes related to children's school competence. *The School Psychology Quarterly*, 8(4), 264-276.

Chen, X., Liu, M. & Li, D. (2000). Parental warmth, control, indulgence and their relations to adjustment in Chinese children: a longitudinal study. *Journal of Family Psychology*, 14(3), 401-419.

Christenson, L. & Sheridan, S. M. (2001). *Schools and Families, Creating Essential Connections for Learning*. The Guilford Press, New York.

Cotton K. & Savard, W. G. (1980). *Parent Participation. Research on School Effectiveness Project: Topic Summary Project*. Alaska State Department of Education, Juneau, AK. (ERIC Document Reproduction Service ED214701).

Cotton, K. & Savard, W. G. (1982). *Parent Involvement in Instruction K-12: Research Synthesis*. CEMREL, Inc., St. Ann, MO. (ERIC Document Reproduction Service ED 235397).

Dauber, S. L. & Epstein, J. L. (1989). *Parent attitudes and practices of parent involvement in inner-city elementary and middle schools*. Report No. 33. Office of Educational Research and Improvement, Washington, DC. (ERIC Document Reproduction Service ED314152).

Epstein, J L. & Becker H. J. (1983). Teachers' reported practices of parent involvement: problems and possibilities. *The Elementary School Journal*, 83(2), 103-113.

Epstein, J. L. & Dauber, S. L. (1991). School programs and teacher practices of parent involvement in inner-city elementary and middle schools. *The Elementary School Journal*, 91(3), 289-305.

Epstein, J. L. & Van Voorhis, F. L. (2001). More than minutes: teachers' role in designing homework. *Educational Psychologist*, 36(3), 181-193.

Epstein, J. L. (1986). Parents' reactions to teacher practices of parent involvement. *The Elementary School Journal*, 86(3), 277-294.

Epstein, J. L. (1986). *Toward an integrated theory of school and family connections*. Report No. 3. Center for Research on Elementary and Middle Schools, Baltimore, MD. (ERIC Document Reproduction Service ED348130).

Epstein, J. L. (2005). A case study of partnership schools comprehensive school reform (CSR) model. *The Elementary School Journal*, 106(2), 151-170.

Fagan, J. & Iglesias, A. (1999). Father involvement program effects on fathers, father figures, and their Head Start children: a quasi-experimental study. *Early Childhood Research Quarterly*, 14(2), 243-269.

Fan, X. & Chen, M. (2001). Parental involvement and students' academic achievement: a meta-analysis. *Educational Psychology Review*, 13(1), 1-22.

Fantuzzo, J., McWayne, C., Perry, M. A. & Childs, S (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33(4), 467-480.

Fantuzzo, J., Tighe, E. & Childs, S. (2000). Family Involvement Questionnaire: a multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, 92(2), 367-376.

Faul, F., Erdfelder, E., Lang, A.-G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.

Fishel, M. & Ramirez, L. (2005). Evidence-based parent involvement interventions with school-aged children. *School Psychology Quarterly*, 20(4), 371-402.

Flouri E. & Buchanan, A. (2002). Life satisfaction in teenage boys: the moderating role of father involvement and bullying. *Aggressive Behavior*, 28, 126-133.

Flouri, E. & Buchanan, A. (2002). The role of work-related skills and career role models in adolescent career maturity. *The Career Development Quarterly*, 51, 36-43.

Flouri, E. & Buchanan, A. (2003a). The role of father involvement in children's later mental health. *Journal of Adolescence*, 26, 63-78.

Flouri, E. & Buchanan, A. (2003b). The role of mother involvement and father involvement in adolescent bullying behavior. *Journal of Interpersonal Violence*, 18(6), 634-644.

Flouri, E. & Buchanan, A. (2004). Early fathers' and mothers' involvement and child's

later educational outcomes. *British Journal of Educational Psychology*, 74, 141-153.

Flouri, E. (2004). Correlates of parents' involvement with their adolescent children in restructured and biological two-parent families: the role of child characteristics. *International Journal of Behavioral Development*, 28(2), 148-156.

Flouri, E. (2005). Father's involvement and psychological adjustment in Indian and White British secondary school age children. *Child and Adolescent Mental Health*, 10(1), 32-39.

Flouri, E., Buchanan, A. & Bream, V. (2002). Adolescent perceptions of their fathers' involvement: significance to school attitudes. *Psychology in the Schools*, 39(5), 575-582.

Green, C. L., Walker, J. T., Hoover-Dempsey, K. V. & Sandler, H. M. (2007). Parents' motivation for involvement in children's education: an empirical test of a theoretical model of parental involvement. *Journal of Educational Psychology*, 99(3), 532-544.

Grolnick, W. S. & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: a multidimensional conceptualization and motivational model. *Child Development*, 65, 237-252.

Halsey, P. A. (2005). Parent involvement in junior high schools: a failure to communicate. *American Secondary Education*, 34(1), 57-69.

Hango, D. (2007). Parental investment in childhood and educational qualifications: can greater parental involvement mediate the effects of socioeconomic disadvantage? *Social Science Research*, 36, 1371-1390.

Hanson, S. L. (2007). Success in science among young African American women. The role of minority families. *Journal of Family Issues*, 28(1), 3-33.

Hara, S. R. & Burke, D. J. (1998). Parent involvement: the key to improved student achievement. *The School Community Journal*, 8(2), 9-19.

Hofferth, S. L. (2003). Race/ethnic differences in father involvement in two-parent families: culture, context, or economy? *Journal of Family Issues*, 24, 185-216.

Hoover-Dempsey, K. V. & Sandler, H. M. (1995). Parental involvement in children's education: why does it make a difference? *Teachers College Record*, 97(2), 310-331.

Hoover-Dempsey, K. V., Walker, J. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S. & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal*, 106(2), 105-130.

Hoover-Dempsey, K.V., Whitaker, M. C., & Ice, C.L. (2010). Motivation and commitment to family-school partnerships. In s. L. Christenson & A. L. Reschly (Eds.), *Handbook of School-Family Partnerships* (pp. 30-60). New York: Routledge.

Howard, K. S., Lefever, J. E., Borkowski, J. G. & Whitman, T. J. (2006). Fathers' influence in the lives of children with adolescent mothers. *Journal of Family Psychology*, 20(3), 468-476.

Illinois State Board of Education (1993). *The relationship between parent involvement and student achievement: a review of the literature*. Illinois State Board of Education Department of Planning, Research and Evaluation. (ERIC Document Reproduction Service ED357848).

Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269.

Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student achievement: A meta-analysis. *Urban Education*, 42 (1), 82-110.

Keith, Timothy Z., (2006). *Multiple Regression and Beyond*. Pearson Education Inc. Boston.

King, V. & Sobolewski, J. M. (2006). Nonresident fathers' contributions to adolescent well-being. *Journal of Marriage and Family*, 68, 537-557.

Klein, A. (2008). From Mao to Memphis: Chinese immigrant fathers' involvement with their children's education. *The School Community Journal*, 18(2), 91-117.

Lamb, M. E. & Lewis, C. (2004). The development and significance of father-child relationships in two-parent families. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 272-306). John Wiley & Sons, Hoboken, NJ.

Lamb, M. E. (2004). *The Role of the Father in Child Development, Fourth Edition*. John Wiley & Sons, Hoboken, NJ.

Lareau, A. (2003). *Unequal Childhoods: Class, Race, and Family Life*. University of California Press, Berkeley.

Lawson, M. A. (2003). School-family relations in context: parent and teacher perceptions of parent involvement. *Urban Education*, 38, 77-133.

Lee, S. M., Kushner, J. & Cho, S. H. (2007). Effects of parent's gender, child's gender, and parental involvement on the academic achievement of adolescents in single parent families. *Sex Roles*, 56, 149-157.

Lopez, V. (2007). An exploratory study of Mexican-origin fathers' involvement in their child's education: the role of linguistic acculturation. *The School Community Journal*, 17(1), 61-76.

Manz, P. H., Fantuzzo, J. W. & Power, T. J. (2004). Multidimensional assessment of family involvement among urban elementary students. *Journal of School Psychology*, 42, 461-475.

Maríñez-Lora, A. & Quintana, S. M. (2009). Low-income urban African American and Latino parents' school involvement: testing a theoretical model. *School Mental Health*. Retrieved July 6, 2009, from http://www.springerlink.com/content/121329/?Content +Status=Accepted

Mattingly, D. J., Prislin, R., McKenzie, T. L., Rodriguez, J. L. & Kayzar, B. (2002). Evaluating evaluations: the case of parent involvement programs. *Review of Educational Research*, 72, 549-576.

McBride, B. A., Dyer, W. J., Liu, Y., Brown, G. L. & Hong, S. (2009). *Journal of Educational Psychology*, 101(2), 498-508.

McBride, B. A., Schoppe-Sullivan, S. J. & Ho, M. H. (2005). The mediating role of fathers' school involvement on student achievement. *Applied Developmental Psychology*, 26, 201-216.

McWayne, C., Hampton, V, Fantuzzo, J., Cohen, H. L. & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools*, 41(3), 363-377.

Menning, C. L. (2006). Nonresident fathering and school failure. *Journal of Family Issues*, 27, 1356-1382.

Minke K. M. & Anderson, K. J. (2005). Family-school collaboration and positive behavior support. *Journal of Positive Behavior Interventions*, 7(3), 181-185.

National Council for Jewish Women (1996). *Parents as School Partners Dissemination Kit*. National Council for Jewish Women, New York, NY. (ERIC Document Reproduction Service ED424933).

Nord, C. (1998a). *How involved are fathers in their children's schools? Issue brief*. National Center for Education Statistics, Washington, DC. (ERIC Document Reproduction Service ED417870).

Nord, C. (1998b). *Students do better when their fathers are involved at school. Issue Brief*. National Center for Education Statistics, Washington, DC. (Eric Document Reproduction Service ED417871).

Nord, C., Brimhall, D. & West, J. (1997). *Fathers' involvement in their children's schools*. Westat Research Inc. Rockville, MD. (ERIC Document Reproduction Service ED409125).

Ochoa, G. M., Lopez, E. E. & Emler, N. P. (2007). Adjustment problems in the family and school contexts, attitude towards authority, and violent behavior at school in adolescence. *Adolescence*, 42(168), 779-794.

Overstreet, S., Devine, J., Bevans, K. & Efreom, Y. (2005). Predicting parental involvement in children's schooling within an economically disadvantaged African American sample. *Psychology in the Schools*, 42(1),101-111.

Parke, R. D., Dennis, J., Flyr, M. L., Morris, K. L., Killian, C., McDowell, D. J. & Wild, M. (2004). Fathering and children's peer relationships. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 307-340). John Wiley & Sons, Hoboken, NJ.

Patterson, C. J. (2004). Gay fathers. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 397-416). John Wiley & Sons, Hoboken, NJ.

Pleck, J. H. & Masciadrelli, B. P. (2004). Paternal involvement by U.S. residential fathers. Levels, sources and consequences. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 222-271). John Wiley & Sons, Hoboken, NJ

Reese, L., Balzano, S., Gallimore, R. & Goldenburg, C. (1995). The concept of educación: Latino family values and American schooling. *International Journal of Education Research*, 23, 57-81.

Rimm-Kaufman, S. E. & Zhang, Y. (2005). Father-school communication in preschool and kindergarten. *School Psychology Review*, 34(3), 287-308.

Roopnarine, J. L. (2004). African American and African Caribbean fathers. Level, quality, and meaning of involvement. In Lamb, M. E. (Ed.) *The Role of the Father in Child Development, Fourth Edition*. (pp. 58-97). John Wiley & Sons, Hoboken, NJ.

Roopnarine, J. L., Krishnakumar, A., Matindogan, A. & Evans, M. (2006). Links between parenting styles, parent-child academic interaction, parent-school interaction, and early academic skills and social behaviors in young children of English-speaking Caribbean immigrants. *Early Childhood Research Quarterly*, 21, 238-252.

Round Rock ISD Community Relations Office (2010). *2010-2011 District Profile*. http://www.roundrockisd.org/Modules/ShowDocument.aspx?documentid=15187

Sénéchal, M. (2006). *The effect of family literacy interventions on children's acquisition of reading. From kindergarten to grade 3*. National Institute for Literacy, The Partnership for Reading, Portsmouth, NH.

Van Voorhis, F. L. (2003). Interactive homework in middle school: effects on family involvement and science achievement. *The Journal of Educational Research*, 96(6), 323-338.

Walker, J. M. T., Wilkins, A. S., Dallaire, J. R., Sandler, H. M. & Hoover-Dempsey, K. V. (2005). Parental involvement: model revision through scale development. *The Elementary School Journal*, 106(2), 85-104.

Watkins, T. J. (1997). Teacher communications, child achievement, and parent traits in parent involvement models. *The Journal of Educational Research*, 9(1), 3-14.

Williams, S. K. & Kelly, F. D. (2005). Relationships among involvement, attachment, and behavioral problems in adolescence: examining father's influence. *The Journal of Early Adolescence*, 25, 168-196.